Second-semester cheat sheet

The second semester probably falls under the easiest semester in computer engineering (don't mess it up with negligence). All the subjects are easy to understand and depending on your motivation, you can speedrun each in 3 days (ask Nisan)(also ask Rohan and other seniors who speedran it within 3 days without much prior study [NOT RECOMMENDED AT ALL, DON'T DO IT FOLKS]).

You are going to have a lot of free time this semester as the number of subjects as well as the difficulty of those is relatively easy. So be sure to do something productive i.e. learn some programming.(Vouch. You'll have a lot of extra time to do other things so make sure to wisely use it, can't promise the same with 3rd semester)

1. Basic Electronics Engineering

This is probably the harder subject this semester due to the volume of the course. But do not be disappointed, the difficulty is a personal opinion and there are some people who might find it to be one of the easier subjects in the entirety of 2nd semester.

The digital electronics part of the course is simple, the complicated is analog electronics.

If you want to follow JKM sir's recommendation, be ready to go through 3-4 bulky books. But the good thing is that it is not necessary. You can go through Bikal Adhikari's book/notes and just know as much.

The key difference between following JKM sir's recommendation and Bikal Adhikari is whether to know all the ins and outs of BEE or to know enough to get a handsome mark in BEE. If you can find Bikal Adhikari's OCR file in the resources (which I'm sure you will), you can use the look-up (or find) feature of your pdf reader to jump into topics that you want to study. [If you're coming back to this cheatsheet with 3 days left before your BEE exam then pick out the important topics and use the OCR + look up option to efficiently read through it all.]

The youtube channels Neso academy and All about electronics have good materials on both digital and analog electronics so go through them for hard-to-understand topics.

Study this subject now because it's practically the same in 3rd semester.

2. Engineering Chemistry

The thing about chemistry is it's not hard, it's basically +2 chemistry but there are literally no books that cover the course on their own without taking up all the space in the bag. If you're not into heavy bags, stick to notes and the slides or a thin book covering all the topics through questions and answers.

The book **A textbook of engineering chemistry** is one such book having important questions and answers from all the topics. Use it as a guide but not as something to understand concepts from.

Consider taking all notes in the class just to have material for the 2-3 day speed run.

There are good notes for organic chemistry and atomic structure, oxidation number stuffs in the drive.

It would be better to take notes from the teachers and read from there if you want to do good in the exams like the black text from seniors said. Also true that there might not be a light book that covers all the course unless you buy an insight which "A textbook of engineering chemistry" and other such books. Insights are a good starting point and should suffice for scoring decent marks on their own but if you want depth and more knowledge then you can always choose to venture out on your own studying journey.

3. Drawing II

You can go through Manas Patnaik's drawing playlists to review before the exam. Assembly drawing is probably the hardest thing in drawing but there are some set questions that are repeatedly asked so be sure to go through the Old is Gold. The youtube channel Engineering Drawing Nepal also has good videos for assembly drawing and other questions. (Yes this channel will be a massive help for the 2nd semester)

Also, we have seen MCL sir's book for Drawing II floating around in the market, consider checking it out.

Pro tip: If your drawing teacher is NA, do all the assignments. He will ask for them at the end.

Irrespective of drawing teachers, if you pay enough attention in class then it should be enough, the drawing topic is less vast than 1st sem so that is a plus point but doesn't mean that you won't mess up just because there are lesser topics. Also if drawing teachers are too lazy to review your drawing don't just sit there, cross-check drawings with friends because you might be spending all semester doing something wrong and never finding out that you

were wrong. (based on true story)

4. Math II

Probably the easiest math curriculum in the whole course, doing examples and questions from H.D Chaudhary's book will make the exam a breeze.

Maths course book + Maths course book solution is all you need

5. Fundamentals of Thermodynamics & Heat Transfer

This subject contains a lot of theory and a lot more numerical.

MCL's book on thermodynamics and the solution book containing the solutions for numerical is what everyone will recommend to you. The key for this subject is to do as many numerical questions as you can.

Yes the numerical point is the important bit, the more you do the more you'll get good at it. With enough practise you can solve any question. Goodluck

6. Workshop Technology

Start going to the gym and just work on your forearms which will make you ready for the workshop practicals. In this topic, yes you can finish the whole tasks earlier and then chill during the last days or months while others do their unfinished work. It'll take equal effort but I've heard departments having to finish the whole ordeal within two days due to covid so with enough determination you can finish it quickly. Tips for CRs; you can ask the lab teachers if there is a time where both your group doesn't have classes and the workshop doesn't have students. You can utilize the time to finish the workshop works. It'll be helpful when exams and near and you don't have to worry about filing the hammer or making the dustpan handle.

We were spared from viva and gave MCQ. But seems like you guys will have viva which I have heard will be a bit hard. Ask the teachers for the book required for the viva and how it will be held.

-(sike! We didn't have viva. Take that 76 batch! Jk. We only had MCQ)

Be sure to go through the drive to look for books, solutions, and notes. Videos of certain subjects from the online classes last year are available as well. We cannot comment on this but if things come down to viva then you studying the slides or resources given by your Workshop Technology teacher should suffice in my opinion. But do ask 75 batch if it comes to this scenario because we and 76 batch didn't have to face it so our opinions for viva are baseless.

That's all we will currently advise you. Feel free to DM anyone from 77 76 or 75 batch for resolving confusions or suggestions. Having said that, Have a good 2nd sem. And for those of you planning to set fire in the 2nd sem, god bless you, I hope you all do because it is possible in the 2nd semester. Put effort and you'll see the results. P.S. Don't forget to have fun either. And also continue the trend of giving out cheatsheet to juniors who will be joining soon, we're counting on ye.

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