This report contains feedback from students about a course taught in the School of Informatics during the 2017/18 academic year, in response to the following questions:

- What would you say to students interested in taking this course?
- What did you find most valuable about the course?
- What improvements, if any, would you make to the course?
- Please add any other comments you have about workshops and tutors

Each course organiser receives this report as well as statistics on multiple-choice responses. All these reports, together with student feedback about individual members of teaching staff, are collected and sent to the Director of Learning and Teaching.

Please note that these are personal responses from individual students: some courses only have a few responses and a small sample can be unrepresentative.

Stereotyping and bias, especially unconscious bias, is a serious concern in any survey gathering personal responses. All students received the rubric below before completing the surveys, and you can read a brief introduction to issues of unconscious bias on the university web pages at http://edin.ac/2iypZBv

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<table>
<thead>
<tr>
<th>Rubric given to all students taking the end-of-course feedback survey</th>
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<tr>
<td>We value your opinions on the courses you take here at the University, as they allow us to shape future delivery and development. We welcome constructive comments about your courses, whether positive or negative, and ask you to give details about any issues in order to help the course organiser to understand and address them.</td>
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<td>We encourage you to be aware of the potential for bias in the completion of these questionnaires, so we have developed resources which may be helpful to you:</td>
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<tr>
<td>- Equality, Diversity and Unconscious Bias (<a href="http://edin.ac/2iypZBv">http://edin.ac/2iypZBv</a>)</td>
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<td>You also have a responsibility to provide feedback in a manner which does not breach the University’s Dignity and Respect Policy:</td>
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<td>- University of Edinburgh Dignity and Respect Policy (<a href="http://edin.ac/1Cq0VZy">http://edin.ac/1Cq0VZy</a>)</td>
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<tr>
<td>The results of the questionnaires will never be analysed in a way that seeks to identify individual students from their responses. However, should you wish to remain anonymous, please do not identify yourself in your answers to the survey questionnaire implicitly or explicitly.</td>
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What advice would you give to a student taking this course in future?

- "I am really sorry for you! Hope it ends well! Pray for a team with decent people!"

- +++++ ++++++ ++++++ ++++++ ++++++ ++++++ ++++++ ++++++ ++++++ ++++++ ++++++ ++++++ ++++++ ++++++ ++++++ (unless you can't help it)

I believe this course is compulsory for most students. If this is not the case for you I would STRONGLY suggest you do not take this course.

This 20 credits course takes up time like a 30 or even 40 credit course would.

If you have to take this course (may that be because it is compulsory, or because you hate yourself and want to take it anyway), here are some tips that may help you keep your sanity:

- Work a steady amount towards this course every day. For us, the time commitment for the semester was 200hrs, working out at 3hrs per day. Don't do more than this. If there is still more to be done, DELEGATE!

- Do not neglect your other courses! At the point of writing this, I have only done the bare minimum for my other courses (assessed coursework only. I think I have attended a handful of lectures in total for other courses but I am significantly behind BECAUSE OF SDP)

- You MUSTNT rely on pure word of mouth from your teammates. Just because someone says they can / will do something does not mean this is actually the case. A lot of people will want to do things last minute. While this is never a good idea, it most certainly isn't for SDP. The deadlines are big and you simply CAN NOT start the day before and push out the work required to meet your milestones / other deadlines.

- Be in close contact with your mentor AND your client. Meet your client between demos. Get feedback of what's good, what's bad well before the demo and adjust accordingly.

- Keep your friends close but your enemies closer. You will end up hating some of your teammates but you need to be the bigger person and push through this without drama. After this course is over? You will probably not see them often.

- If there are any problems with your team (for example communication breakdown, laziness), bring them up early! Chances are you are not the only one feeling that way - Discuss it with the team and/or your mentor EARLY.

- Do not take this course. It is one of the worst-run and most stressful courses in Informatics. However, it's also mandatory for a large number of students and so here are some general tips.

1. Treat the course like a 30 to 40 credit course as it has a very high workload. Work a little every day on it if you can, but also have a firm limit; do not exceed that.

2. Garry is extremely useful (and very busy).

3. Keep in good communication with your team. That includes your mentor. This will be difficult - more so than you might expect. Just be as clear as possible with your team and keep to your word. Do the work you've been assigned and trust others to do the same -- up to a point.

4. Don't expect any help from the course team or adjustments to be made if there are outside factors. For reasons I do not understand, the school are completely unwilling to accept extension requests, move deadlines to accommodate for strikes, or change simple things like room assignments for demos. My exact thoughts on this would probably violate the dignity and respect policy, so just be advised that things will get tricky and you'll just have to go with it.

- Good luck, fellow student. You can get through this - we all did and it was awful. Feel free to come talk to your peers from higher years: we know your pain and can help you. You will learn a lot, but the cost is your mental health. Don't take this trade-off lightly but treat yourself and your team with respect.

- Although it's an Informatics course, be prepared to do a lot of work in terms of organization, team management, writing documentation and etc. Useful if you don't have any industry experience. However, if you have experience and it's not compulsory for you, think twice before taking this course (its loads of work).

- Communication is vital for this course. It is good to have ambitions but it is also important to know where is the limit for your group.
What advice would you give to a student taking this course in future? (continued)

- Definitely recommend, it's all worth it in the end!

- Depending of the team you'll end up with, it can be the most interesting or the most disappointing course during your studies. The experiences and the knowledge gained though is massive.

- Don't take it unless you have free time to research research and research. Expect so many hiccups and problems with stuff you won't have control over like WiFi and self-managed machines which are provided. If you have previous experience then take this course. If you know Lego, take this easy course. Go with a easy idea which is easy to create with Legos, doing software is a lot easier since you have experience in it. Then if you had time expand on it. Make your team understand these constraints. Stop them if they are going without considerations and definitely create an actionable plan.

- Don't. Majority of your time you will be confused about what is expected of you, writing reports, arguing with teammates and struggling with Lego.

- Find good ways of dealing with stress because this course will be a lot of stress.

- Get excited about it! This course was much better than all my other courses in the first 3 years combined! The key is to get a good team. If you got excited about the course as I told you, you are halfway there. Now get excited about your team before you meet them. When you do meet them on day one, show all this excitement. Once you all become friends and get hyped about your project, you can achieve anything - there is no limit. Literally! Just look around you - there is your team and there are some of the world's brightest people in it! All these people can't wait to work as a single mind to achieve some utterly awesome things. (I am sober and dead serious btw. My group managed to produce a robot that was actually better at some parts of its job than the same kind of robot produced by an actual company. Now compare the resources. The company worked on it for years and must have spent anywhere between thousands and millions of dollars on R&D. We worked part-time for three months and had three boxes of LEGO and 200 pounds and we actually managed to beat the company!!)

I will conclude with a Pro Tip: During the first week, discuss within your group how much people want to contribute. Some may have different priorities which is fine as long as they also expect an adequate mark. Knowing this will make management massively easier and more efficient as you know what resources you have and you can split and plan the work accordingly.

- If you can avoid it, don't take it unless they make significant changes to the current structure.

- If you can, avoid taking this course. It is stressful, requires much more work than other 20 credit courses do, so much so that some students have to skip other coursework just to do SDP. In the end, the marking was not consistent with the amount of work we were required to put, the whole course felt disorganised and looks like we were only graded on how well we can write reports (and even the best reports got poor marks, for no apparent reason), instead of work as a team.

- If you're taking SDP you most likely have no choice, right? But SDP is great, trust me. Take it seriously and you will be rewarded by endless hours of an excellent learning experience. You will make friends, you will learn a LOT of technical and transferable skills. SDP, however stressful it can be from time to time, is an excellent and unforgettable course.

- It's a LOT of work and getting a good group is definitely not a guarantee, but after you're done it will be very satisfying and you'll learn a lot too

- Learn this simple thing the organisers are massively incompetent, don't know what they want form a robot and don't provide reliable information on anything, the only life saver you have is Gary who may the gods bless him is the saving grace of this course and your only life line to get a good grade by the end.

Technical Advice:

The EV3's are mostly useless for any task that is time sensitive, they are not strong enough for image processing and ultimately only useful as a hub to take in sensor data and move your motors but even that is debatable.

For the EV3 motors they can be controlled simply via their black and white wires from the EV3 modified RJ45 making one positive and the other negative controls which direction the motor is going in, which is useful to know if your using the ardinion or the a RPI etc. For communication between EV3's or another device like a computer or RPI to the EV3 use MQTT <- Search google it is basically the simplest way forward.

For using a Pi via ssh on enduroam network look at a website called dataplicity for getting around its limitations.

Colour line following is a pain copy one of this year's group entire code and roll from there.

In terms of how to tackle the course I would recommend the following:

The course marks are massively biased towards writing a reports, people skills and advertising, this might seem unfair and it is almost everyone on your team will be computing scientists thus to get a good mark, during week one find the person in your group who CAN write reports (in latex) or has good writing skills, find the same or another person who you think can talk well in front of others and can "sell" your robot to during client Demo's or during the Final Investor demo and finally find the person who can use...
What advice would you give to a student taking this course in future? (continued)

Photoshop or its ilk and has experience making artsy stuff. They will be the people who will get the team the most marks so make sure their primary responsibility on the course is to do lead these parts of the projects. If you don't have someone with anyone of these skills, put simply you're in a bad position and you MUST find someone who can and will learn this stuff before getting into technical position allocations.

Now that you've found who can pass this course next you need to find who's good technically, for this course you will likely need someone who knows how to solder/ how circuits work as this will be needed for the arduino if you use it. Assign at LEAST 3 people to do coding for your main functionality, this might sound extreme but it's your greatest asset your knowledge of coding and the part of the course you can shine on also people have lots of assignments during 3rd year so always having one person working on the code is deeply needed, ASSIGN only 1 person for any app you make and have someone run supervision of them and the coding group ultimately a app can be made in a couple of days if that person fails unless this is core to your project don't focus on it, ASSIGN 1-2 people to build the Lego robot, look mostly likely no-one has placed with Lego for years you're going to need either 2 temp people on the building or a neurotic single person to meet all the groups needs.

I'm tired now so I hope other people have provided better advice good luck!

- Make enough research before you decide what you want the robot to do, as in the end it might turn out to be too hard. Organise your team efficiently and make sure you complain early if something does not work.
- Do your work and get involved, otherwise your teammates will work more and it is not fair. Pay enough time to those reports, they matter a lot.
- Good luck.

- Make sure that your team is organised, try and do things as quick as you can and if you finish your goal for the week don’t just stop as you don’t know what problems may take longer in future weeks
- Make sure you get clear requirements and the same client, or your grades will be affected for no real reason. It's out of your control, so hopefully feedback is taken into account.
- Planning and communication with your team mates is key to survival.
- Prepared to work hard with students you've never met before and build the team environment from the very start.
- This is a definitely take course. It will not only enhance your coding ability but also team collaboration skills.
- Try to make sure your team gets along, otherwise you'll be in 10 weeks of hell.
- Make sure to figure out how much time you can put in each week without overworking & what your goals each week are, and communicate with your team members about any worries/changes.
What did you find most valuable about the course?

- Garry is fantastic
  - Our mentor was helpful and stepped in when needed
  - Masochism is kinky

- A chance to work with electronics and coding a complete system.

- Building a robot, learning a lot about team work, working on large group projects.

- Engagement with the course from the very start. Well-designed submission deadlines to engage students throughout the semester.

- Garry, the technician, is incredibly useful and a pleasure to work with. Definitively an invaluable part of the course!

- Gary

- Group work

- It taught me that I really don't like robots :(. It's always sad when you have to learn something like that.

- Learning about EV3, arduino, robotics, working efficiently in a team, splitting up tasks

- Meeting new people

- Nothing especially valuable. Mainly, it made me appreciate other courses more.

- Nothing honestly. This course was very bad. The feedback and requirements were so inconsistent. It really looks like there has been no discussion whatsoever between markers, clients etc. Everybody kept telling us conflicting stuff and in the end, I don't even know what was wanted from us.

- Solving problems that are specific to your group and having to come up with solutions to things not on the internet.

- The ability to think out of the box and working as a team.

- The actual idea behind the course is interesting. I liked that I had the opportunity to learn something about robotics.

- The opportunity to work in a group in a similar fashion to a tech start up or an agile team in a bigger company. The best way to learn something is by doing it, failing, and then fixing my mistakes. SDP provided a huge opportunity for developing a range of soft skills in this way (e.g. project management, presentation, and general communication skills. However, I also learned a lot about robot hardware and electronics which was the most fun part.

- The whole idea, really. Also: Garry and the fact that we had a budget we could work with. Also, good that you were using Slack :-

- While I mostly disliked this course, it is undeniable that there are valuable parts to it.
  First and foremost, I would like to thank Garry. He is certainly the best part of this course for me! Friendly, helpful, nice - To an extent so far unmatched by any other member of staff I've met.
  Furthermore, this course can teach you the following skills:
  - Teamwork, even with difficult people
  - Git (hub)
  - Hardware stuff (if you choose to work on it)

- Working in a team and developing the business side of things is interesting. Also, learning how to operate hardware is also quite interesting.

- Working in teams and having access to materials and a whole floor to ourselves.

- Doing programming that wasn't about filling in a skeleton file like it is in most courseworks, but allowed us to build a full system. Learning to work within a group, communicate, and figuring out how to schedule your time was valuable.
What did you find most valuable about the course? (continued)

- team work
- The experiences to work within a group, to communicate with others and to solve problems together.
What improvements, if any, would you make to the course?

- Clear expectations, either increasing the credit count, or significantly decreasing workload, transparent marking guide (the marks we have received weren't well explained, and in places we have got inconsistent feedback).
- Clearer assessment criteria, better organization
- Clearer instructions on what is required.
- Either stop making the course about robots (IoT instead would have been soo amazing!) or make it voluntary.

Fire the organisers, Keep Ludivica, James and Gary- they were alright.

More tutorials on how to use the technology given to us:
- i.e. at least 4 sessions on building with Lego, at least 1 session on connecting ev3 to anything, 1 on limitations of Lego etc
- More detailed feedback and advice on how to improve in future, not just give bad mark
- Ability to "Fire" Teammates and have that accounted for in grades
- Not have the Personal report only list "1" thing you did this gives far more power to people who did bugger all where some people might have helped a lot in a little of everything
- Have a Support limit where the weakest groups can be given more advice and supervision to bounce back from being in bad place.
- More supervision of Client marking as they are entirely random
- More details on what the hell should go in a report

- Give ability to fire team-mates. It is only so much a team of actually 2-3 people who work can do.
- Give better indications as to what we are supposed to build. It is not fair to take a low mark in a demo, just because the milestones were "too easy", without pointing out in any way that a change in milestones is needed.
- Have clients that can give a proper feedback after a demo. It is not OK for the client to say everything was fine, and then 10 days later to get a low mark.
- Coming to that, it is very bad to receive a feedback saying "Low mark on demo, the plan is bad" (not exactly in these words, reproducing from memory) with 4 days before another demo. If we were to change the plan we would have been marked down for changing the plan last minute. If we were not going to change the plan we would have still been marked down for having a bad plan.
- Coming to the project planning bit: I think we are judged on our plan as a first thing in this course, and demos are there to judge if we delivered according to our plan. As far as I see it, you should either get a GOOD plan, which will not be discussed afterwards, or a BAD plan, which has to be resubmitted until it is good. For my team, we got a low mark on our plan, and then continuously lost marks on demos just because of our plan (even though we did exactly what our plan was saying we would do)
- Also, the individual report favours a lot people who have not done any work. They can easily say "I did research" or "I did X, but X was never put into the final form of the project". I fear a lot that people who did not contribute at all will pass this course by working less than 20 hours. I would make individual reports to be a report of ALL the things that you did. I think this will clearly show who stayed up doing all-nighters, and who was home doing anything else.

- I had to wait and argue with other teams for the camera. This caused time and less testing.

- I understand that this course has changed this year for the first time in many years and many old pieces of organisation are still resident from the previous iterations of the course. Please consider my following comments on how to improve this course.
  1. Time commitment
   - It is undeniable that this course is taking up a huge chunk of time for both the students and the markers. With the move away from a unified project, please consider increasing the number of credits this course yields to 30 or even 40 in order to better reflect the workload. Giving us students the freedom to choose the direction of the project based on a loose goal (assistive robots) rather than a fixed project (play football) is a great step in the right direction but also incurs costs that come with it. I'd argue that this demands even more time from students than in previous years as there is simply no large amount of previous code/projects to base your own robot on.
   - The marking
     - This is probably my biggest grudge with this course. Even though the course organisers/markers have not changed since last year, the expectations they bring to the marking seem very volatile. We found ourselves implementing or including in reports many parts that were marked as "missing/necessary" in previous years' feedback just to be MARKED DOWN FOR INCLUDING THEM THIS TIME!??You can simply not change your marking scheme there and then in the moment, as you please, just to make grades fit a bell curve. From the introduction, it seemed that reports would be marked by our mentor which was not the case - It feels like the actual markers bend the rules however they please in order to not mark the quality of the report but the premise of the robot. Feedback given on reports and demos was either non-existent ("good", "okay", with no additional individual feedback) or didn't explain the mark very well (why did you think the presentation in this report was poor? Give examples of what was wrong and what would have been better instead!)
What improvements, if any, would you make to the course? (continued)

3. The deadlines
It does not make sense to write a user guide for a robot that is not finished. Or are we expected to have a finished system by the time the user guide deadline rolls around? If that is the case, please see 1. Time commitment.
4. The guest lectures
Sorry to say this, but the guest lectures didn't provide a lot of value. They were either irrelevant or relevant but without any good content.
5. Lack of support
While Garry is brilliant, he is also very busy. Especially in early stages of development, it would be useful to have more staff available on AT3 to give you a hand, answer questions.
6. Expected learning outcomes
Please *clearly state* what the learning outcome of this course is. There were mentions of teamwork, project management, problem-solving, communication, agile engineering. It seems that we are instead marked on robotics skills, report writing and pitching. It is fine to go that way but please provide more resources and support for the aspects we are actually marked on.
7. Stress
All in all, this course marks the low-point in my university experience so far. I would argue that it is one of the factors that has caused a significant relapse of previous mental health problems for me. There are no efforts made by course organisers to facilitate a healthy approach to work. This quote from a previous survey puts it well: "It's a damning indictment of the tech culture that we implicate praise on those who allow a piece of work to consume their being to the point where they do not sleep or eat properly for days on end. Nothing is worth the aberration of one's mental and physical wellbeing, not even robot football. I do believe that the workload is well beyond what should be expected for a twenty credit course, and I would very much like the organisers to seriously reconsider this in future, from the perspective of encouraging student wellbeing."

Thank you for your attention.

- I would make marking criteria clearer and would not try make the average mark for the course be between 60 and 65. SDP is very different from other courses and hence it makes sense that many students will want to work harder than usual and they might easily motivate the rest of their teams to join. Hence the average mark should be higher in the end. It was very apparent that partial marks were reduced to achieve some set average for the year. This has two very bad implications:
  1. It is VERY discouraging and demotivating to receive a B for work which has clearly been many levels above what we would be able to produce if we only had the knowledge and experience that university offered in the first 3 years. Everyone in our group had significant experience from internships, part-time developer jobs, and other projects. We worked very hard on a report and used this experience. There is simply no way such a work deserves anything other than A.
  2. It re-introduces the competitive element that was supposed to be removed. If the marks are scaled like this, the only thing that matters is to be better than others. Fortunately, most teams either did not realise this or ignored it so they were helping each other which created very nice atmosphere and increased overall productivity massively. Competition should definitely be eliminated. The final day with judges from industry is sufficient motivation and more competition would only hinder the combined productivity of teams.

- In my opinion the course workload did not resemble a 20 credit course. While I realize that can be entirely team specific, I have heard similar remarks from many students taking this course. Personally, I would increase the credit worth of the course, which will help students not fall behind on other courses because of SDP.

- Less hurried start of semester. Like, come on, 3.5 days is not enough to come up with good ideas, do background research to get a rough idea of what is and isn't feasible (given no prior experience building robotic systems, using Arduino/PI and many other things).

Maybe even more importantly, I think you should help the teams more as they organise themselves. In many cases, most of the people didn't know each other. And in many cases, there were no people on the team with knowledge/passion for managing a team. The result is that, well, a team can lack any useful (and crucial) team-building activities to get them started, know each other, each other's expectations from SDP, approaches, preferences, qualities -- all the stuff that is so vital for the correct functioning of the team throughout the semester (not mentioning the knowledge of concrete tools like Trello or the various features GitHub offers). If you rely on our knowledge of management and team-work from PI, then I have to disappoint you. And a guest lecture isn't gonna work much either. It would need to be something more interactive, to the point, hands-on... You should not underestimate this critical phase in the teams' development; in often cases it leads to far-reaching consequences that make the experience of students throughout the course worse than it could (and should) be. Now, I should apologise for my lack of concrete proposals...

Please, ensure that the marking criteria are clear (I mean particularly such things as the small note saying "evidence of quantitative testing" in the client demo instructions, which then resulted in many groups receiving negative feedback from the clients and having marks deducted). I know that in real industry world this would not be clear and it is up to the start up to present themselves as well as possible. However, besides being a valuable experience, SDP is still a 20-credit course and people deserve to have their marks clearly defined, don't they? If you want more examples, there's also the user guide the target reader of which was fairly unclear until the last moments (different information coming from the website, from James, from the clients...). There were the pitches where
What improvements, if any, would you make to the course? (continued)

it was not clear whether we were supposed to pitch an overall idea, or just what we thought would be realistic to finish as a simplified prototype by end of March (and, as a matter of fact, our mentor told us to definitely go with the first approach).

- More guidance on the documentation portions.
- More time is needed to actually decide on the idea of what to do. More lectures and workshops on actually learning how to do robotics if the task is making a robot! The management of the team should have been by the mentor. A peer management is not a good idea, since generally they don't contribute much. Each member should be fully given time to present their contribution at each demo. We did this is not acceptable since a person who is just more talkative is gonna talk over your contribution and make the picture that it has been their own.

- Please do not do the same structure again, it's very confusing for everyone involved.
From the beginning, it has been unclear what level of robot is expected. The feedback from our reports and the demos are completely different. The first project plan was a joke, how are we supposed to write a report on an idea that we had to come up within a week? It seems completely unfair to criticize a team on a complete plan on something they know nothing about. We have not glanced once at our supposed plan apart from looking what we said our goals were, all the time making a schedule was honestly wasted. Not even to mention that the marking was based on a marking guide which wasn't released.
We are now at the end of the project and honestly, I feel like I still don't know what I am doing. The levels differ so much between teammates and teams that it is just basically lucking if you ended up in a motivated team, and since every robot is different it is really hard to see if you are underperforming.
This course has been frustrating and not enjoyable whatsoever.

- Please, please, please take this feedback on board. I really want to be as constructive as possible, although there is a lot to say. Firstly, naturally I understand that changing the format will increase the amount of confusion -- and that industrial action was not ideal. However the simple fact of the matter is that this course was extremely poorly organised, feedback to students was incredibly sporadic and unhelpful, and the workload is unacceptably high.
Focus on improvements is a good idea; here are a few suggestions:
- Increase clarity on all aspects of the course. We have received contradictory statements throughout delivery this semester; how marks are to be allocated and by whom is not presented plainly enough; what expectations and learning outcomes are needs to also be clarified: if marking is to be based on teamwork and problem-solving, allocating marks for flashiness and presentation skills is disingenuous.
- Ensure that the clients and mentors roles are understood by everyone involved in the course. I was not fully aware of the role of our client until rather late into the semester, and I don't believe clients are necessarily aware of what's expected of them either.
- Lower the workload, rework deadline dates, increase flexibility, or alternatively increase the course weighting. I am hoping that this point can stand on its own. Yes, I know that this is "student directed" for the most part, but there is a competitive aspect (still), and the deadlines are unfair given the industrial action.
We have been essentially told that if we are unwilling to break the strikes and cross picket lines, we will fail SDP. I would like to state completely clearly that this is beyond unacceptable -- it is appalling. Feedback was delivered to the teaching team via student rep meetings but this appears not to have been taken on board. It needs to be rectified next year.

- The feedback from the reports was not adequate, there were only minor comments and not even an explanation of how the overall mark was deducted from the different parts. The organisation could also be improved, for example letting us know about things earlier in advance

- The number of credits should be increased for this course and it should run during the entire length of the year. Marking should be more transparent and please for the love of god don't use curves. A lot of people put in a lot of effort into projects and even by judging the standards of the school should have received marks in the 1st area, but didn't... Regarding the two course organisers & TA's: please make sure you're on the same page regarding decisions etc.

- There should be more guidance on the first week to help get started and to decide the project and milestones correctly.

- This course simulates working for a real client. As such, the course organisers describe getting to know your clients preferences as key to getting good grades. We had a DIFFERENT client for every graded part of the course, making it impossible to predict what was expected due to different personal preferences and loose marking schemes and requirements. Getting good grades is completely random, feedback is generic, and your chances of doing well in the grades are not directly correlated to your performance in the course.

- Workload for this course is beyond a 20 credits course, so either makes it to 30 or 40 credits or reduce the workload to be fitting for a 20 credits course.
What improvements, if any, would you make to the course? (continued)

- A lot of the specifications were given late, changed, or were inconsistent with the new setup of the course (changed away from robot football).
- more support for ideas in the beginning
Please add any other comments you have about workshops and tutors

- I didn't go the lectures - I think they had a feeling of "optionality" to them and because of that, they were not attended in large numbers.

- Just for myself, the workshops are not necessarily important as long as there is detailed information online.

- Mentor meetings were mostly a waste of time.

- Mentorship went fine, our group had no problems there. The workshops at the beginning of the semester were about as useful as a rotten fish, literally a waste of time as they provided no insight into building a robot beyond a "single trick with lego" despite the project being done with Technic, the ev3 workshop taught nothing about how to use the EV3's effectively, their power or their limitations <- BIG ONE THEY ARE MOSTLY USELESS for any time sensitive operations which many groups had to suffer working out..

- Only three workshops at the beginning and these weren't enough at all. There was no workshop on building a robot, and this year it wasn't just following some previous year project like a football player robot, it was brand new ideas of our own creation and tackling the challenging construction, design, and writing software were more of a hiccup that a system design project, of group work.

- The "workshops" / intro sessions were pretty much useless. 100 people cramped into a room trying to figure out what this piece of electronics does in front of them. Smaller groups, please!

- The tutorials taught me nothing. You could have just e-mailed me a list of useful links.

- The workshops at the beginning of the course were very full making it difficult to hear what was being said.

- They ran only in the first week and were extremely busy.

- Which one? There are no workshops?

[Please note some content has been removed from this report due to containing offensive language]