Samuel Cubero Ph.D, B.E. (Hons) Mech Australian Citizen www.samcubero.com

STUDENT TESTIMONIALS & TEACHING EVALUATIONS

The following comments are just a few samples of "word-for-word" comments from actual student surveys and feedback reports collected over the years. For the purpose of protecting student privacy, the full names of actual students who made the following written statements have been omitted. The original source documents or student survey reports containing each of the following comments can be presented to you if required.

Curtin University (Australia) "Mechatronic Project 234" (electronics, microcontrollers, mobile robotics)

"Sam is an excellent lecturer with a lot of experience. I found the labs to be well equipped and managed. The challenge at the end of the semester "robot wars" was a great motivator and inspired me to put a lot of effort into my final project. I also found the lecture notes to be complete and a great resource."

"The labs help you to perfectly understand the lectures!! Brilliantly structured!!"

"Very good hands on work on implementing circuits and programs so that students would understand most of what is being done."

"Many practical sessions allow students to apply knowledge learned in lectures to real life problems."

"This unit [Mechatronic Project 234] is already very well organized and well taught."

"It's perfect!!" ...

(Face to face comments from students: "All the students look forward to doing your subject the most... It's just so much fun! ... This is the only subject this year where we get to design and build something, while the others are mostly just theory." ... "Your labs are excellent."... "This is the best subject ever, period!"...)

Curtin University (Australia) "Engineering Graphics 232" (AS1100 detail drawing, AutoCAD 2D & 3D)

"The labs were great! The assignment was also well designed."

"Demonstrations in lectures provided ample information to complete the set tasks. Labs were very helpful."

"The labs and examples in the lectures were very helpful."

"This unit grooms us for real life drafting and it has done so very much with the unit project that tests every aspect of the unit."

Curtin University (Australia) "Mechanical Design 321" (stress analysis / solid mechanics, machine design)

"Lecturer was excellent and knew his material."

"Tutorials were very helpful." ... "Sam is very motivated."

"The assignments helped me apply learning outcomes to real engineering design problems and solve them with confidence."

"Designing your own product made things interesting. Worked examples and information on WebCT were helpful."

USQ (Australia) ENG2102 Engineering Problem Solving 2: "Wind Power Turbine Analysis / Wind Farm Design Project" (2008) and "Ski Lift Design & Analysis / Ski Field Design Project" (2009)

(NOTE: EXT or "external" students are "Distance Education" students who were provided technical assistance and guidance through online forums and discussion boards that are monitored and answered almost every day.)

"Sam is a top guy, and one of the good lecturers I've come across, especially being external... He is pro-active in supporting us externals and earns his money."

"I would also like to thank Sam Cubero... he helped a lot in the machine design area and was very pro-active to myself and all students."

"I would like to take the opportunity to thank you [Sam] very much for all your mentoring and guidance and support. You were always there for me when I had an issue and I thank you for that. You provided me with information that made me rethink my approach to various problems which has allowed me to develop my problem solving skills even further. I do not think I would have achieved what I have if not for your assistance, detailed explanations and prompt responses... Once again Sam, thank you very much and I do hope our paths cross again sometime during the course of my degree."

"Thanks also for the effort you have put into this course, without your tutorials I would be still scratching my head. The extra effort you put in doesn't go unnoticed."

"Thanks again for all your hard and great work in helping students understand the mech eng concepts better."

"Thanks very much Sam, out of all the staff I came across during the course you provided the most feedback and helpful information. Cheers."

"I agree, thanks Sam for the prompt responses and in-depth feedback. The tutorial videos were greatly appreciated also. You have definitely put in much effort for the benefit of us students. Thanks again."

"I still appreciate every comment Sam has posted. Not only answering every question but going into further detail for our own benefit... Having many hours of very helpful, easy to understand and down to earth concepts has been the only thing getting me through this course. I also am studying engineering statics and Sam has been able to help me understand things taught in there much more clearer. So I would just like to say a very big thanks to Sam for all the effort he has put in this semester to help all of us out. You deserve a fair bit of credit Sam. Thanks again!"

"Sam has put a great deal of effort in to try and teach us not only Mechanical specific topics, but also some 'lifelong learning skills', our attitude to learning..." ... "I will remember some of the things you said..."

"Sam, you have put in a huge effort and personally taken the time to try and answer everyone who has asked a question of you. The amount of time you have dedicated has been massive ... To keep on top of that as well as do up all those tutorial videos (by the way, I found that to be a big help... even though I struggled) ... is truly appreciated... Thanks again Sam."

USQ MEC2402 Stress Analysis (Semester 1, 2009) SELTS and SETS student survey comments:

"He [Sam] is an asset to the Uni, and like myself, I am sure that future students will benefit from his tutoring."

Q: What improvement would you suggest to the course itself? A: "None. Just make sure you keep the lecturer, he is great."

"He [Sam] is a very good lecturer, and his way of teaching is very effective. He is very helpful and cooperative." ...

"The best lecturer I have had in 6 years external study with USQ."

"I would like to personally thank Sam Cubero. He is a shining example of what a University lecturer should be, a teacher first and an academic second."

Q: What did you find were the most helpful / effective aspects of this course?

A: "Sam's professional approach to the course, he was there for anyone who needed help, provided ample and excellent information and had our assignments returned promptly to assist with next assignments or exam prep. Best course I have been involved in at USQ. Well done Sam."... "Everything is good."...

Student Testimonials about the teaching work of Dr. Sam Cubero - Updated 9th January, 2020

"Lecturer [Sam] was prompt with replies to all calls for assistance for myself and other students. Personally I wish I had this type of support throughout my study to date. Also it is the kind of prompt assistance that I expected some years ago."

"the lecturer was very helpful"

"So much of this course was so much better than previous courses."... "This is the first course that I think I have learnt the content but it has been the hardest. Well done to the lecturer."

"Sam Cubero went above and beyond the call of duty with respect to assistance. With all due respect to past and previous lecturers, I have never come across a lecturer so committed to the success and welfare of students. He would answer queries at any time of the day (and night!) and would include additional examples and web links to assist with the problem."...

Q: What did you find were the most helpful / effective aspects of this course?A: "Study material, lecturers and tutorials were very good. Very good lecturer response for this course."A: "Sam's explanations on StudyDesk – by far the best examiner that I have come across."

"Very good study material and text. Excellent support from Sam. Prompt, helpful and detailed responses to queries. Sam's philosiphysing and motivational quotes were also quite amusing and appreciated!"

"Great course with awesome support from Sam."

"I would like to comment on Samuel Cubero. This lecturer is one of the most dedicated, thorough, helpful and knowledgeable individuals I have ever come across. As an external student, these qualities have assisted me in being less stressed and having a better understanding of the material."

"On a scale of 1 to 10, I would give [MEC2402 Stress Analysis] an overall rating of 9/10."

"He's very knowledgeable and knows interesting applications of the subject to make the content interesting."

"Awesome worked examples!"

Some students noted lecturer strengths like: "Interest in the course", "Relevance to real world situations", and "Having in-depth knowledge in the course and makes the subject interesting while teaching."

"I thought the exam was good and I thank Sam for preparing us well for the exam."

"This lecturer [Sam] has responded better than any other USQ lecturers I have had. His dedication and mentoring to external students is fantastic. If only the other USQ lecturers have the same enthusiasm. I thought the exam was great!"

"I like how you give all the information to students. That's very good help for an external student..."

"... Thanks Sam for no nasty surprises and a good course."

"I can honestly say Sam, that you are the best lecturer I've come across so far at my studies with USQ. You provide outstanding and timely support/feedback with any question posted on these forums and you even reply after hours and on weekends! No other lecturer I've come across yet does that, in other subjects sometimes you are even lucky to get support or a reply!"

"Yes Sam, you've done a great job. Favourite lecturer!"

Refer to PDF file: "Examples of Course-Instructor evaluation survey results.PDF" to view teaching quality survey scores and comments from students. The following comments were copied and pasted from these surveys.

MEEN325 Mechanics of Solids (Khalifa University)

"Pleased with everything. Very stimulating lectures and brilliantly taught. Very interesting case studies as well which made for interesting class discussions. Great lectures. Energetic. Great structure. Good structured and interesting seminars. The teacher is very good at teaching and explaining."

"The best instructor i hope he teaches us next semester introduction to manufacturing"

"Lectures are well explain. Also the instructor was well organize and encourage us to do our best. The instructor teaching was very good and he give real life examples for us to understand better."

"Dr. Sam is very good in explaining the hard concepts by breaking them down into smaller parts without complicating the idea. I believe that our instructor did a great job this semester."

"He is the best teacher, He teached me very well, everything is clear. I hope that he will teach me another course"

MEEG345 Intro Manufacturing Processes (Khalifa University)

"Best professor in campus."

"One of the best instructors I ever took a course with since he explained everything and made me feel interested and motivated to do more, always well prepared and helps the students with everything, never late for any class."

"He is very helpful doctor, always there for us when asking question never late for any class he is always well prepared."

"Dr. Sam has allowed us to explore the world of manufacturing beyond the assigned theory. He motivated us and shared us a glimpse of real-world design problems and has also given us tools to think further. It was a pleasure taking the course with you Dr. Sam!"

"Dr. Samuel is literally the best instructor ever! During the lectures, he presents all the information clearly with the aid of videos and samples to help us visualize the final product and understand the whole process. Moreover, he makes things more enjoyable like you can't sleep during his class. Super friendly and kind, all the class members agree on that."

"This course was well organized and explained by Dr.Samuel Cuebro. Dr.Samuel was very helpful and friendly. I believe in this course I learn a lot where I can use the knowledge I learned in real life practices. Dr.Samuel have a very unique style of teaching were he encourages students to work hard and to think harder and to give more effort in acquiring knowledge. Dr.Samuel focuses his overall view in providing engineers who can make this country greater. I believe that Dr. Samuel educated us to be real engineers in which we are proud to call our selves problems solvers. I hope we meet instructors like hem In the future where the course became more enjoyable, easier to comprehend and stays as a rock in students mined."

"Over all Dr.Samuel Cubero is great instructor always their for help, and he have great knowledge."

Dr. Samuel is an excellent instructor, he respects the students a lot, which makes us respect him more. Also, his explanation of the course is really good."

"... thanks to the instructor he tries his best to indicate what are the most important things we need to know in this course."

"Dr Samuel Cuberois one of the best instructors I ever had in my life. He explained the subject very well and very simple. I wish he can teach all courses."

"Good Professor Knowledgeable well prepared and good pace of teaching, the course is well connected to mechanical Engineering and i liked the workshop allot and both of the supervisors working there very professional."

"One of the best teachers in PI, to be honest" [NOTE: PI means "Petroleum Institute"]

"Dr. Samuel is a great person"

"I learned so much in this course and I am sure it will help me in my future thank you"

"I enjoyed studying this course."

STEPS 2 (Strategies for Team-based Engineering Problem Solving 2) Design & Build project

QUESTION: "What did you like most about the course?"

ANSWER A: "That it is a practical more than theoretical. The fact that we actually worked on it was really helpful and helped me in learning many new things."

ANSWER B: "That we have to work on our own project and made something "

QUESTION: "How would you rate your instructor's performance and effectiveness as a teacher, out of 5 stars, and why?"

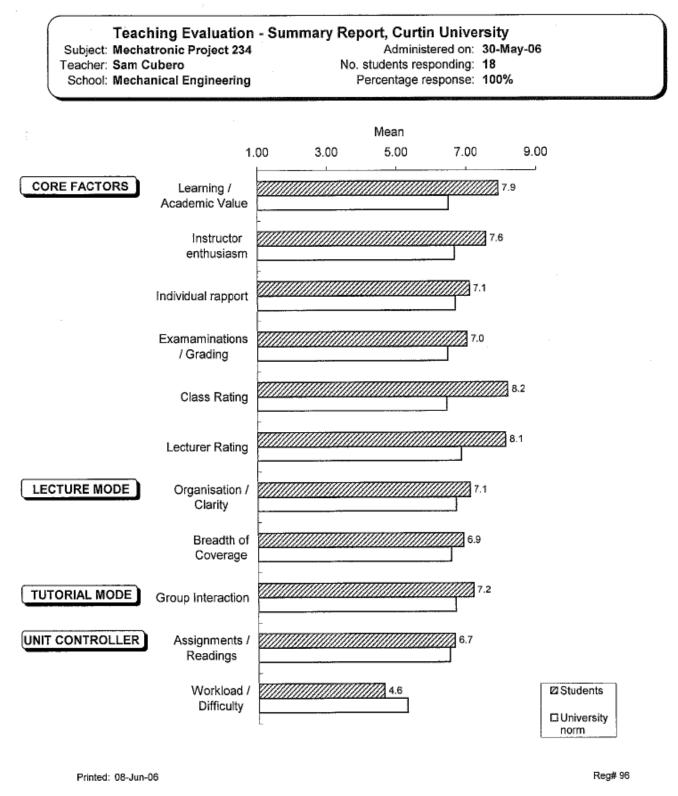
ANSWER A: "5, the instructor was always their when needed. He gave us a push to run, did not run for us. That's what helped me the most. He helped us, yet did not do the project for us neither give us a direct way on doing it. Only giving hints."

ANSWER B: "4.5, was very easy to talk with and explained things clearly."

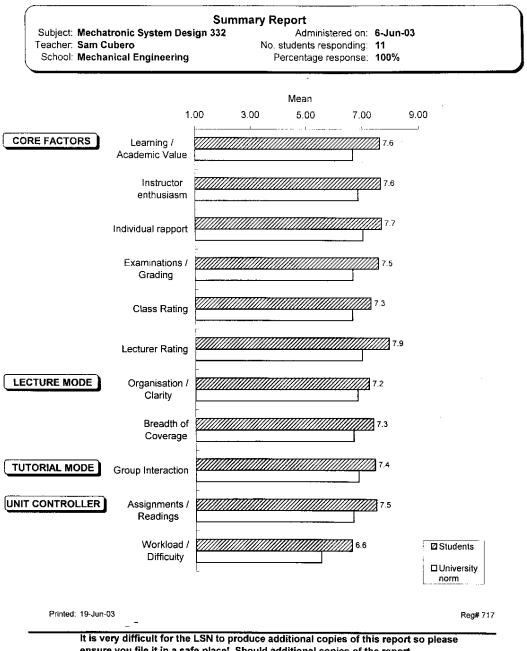
(See more "Letters of Appreciation" at the very end of this document)

The following sample summary reports compare student survey evaluation results on teaching performance to University norms (averages).



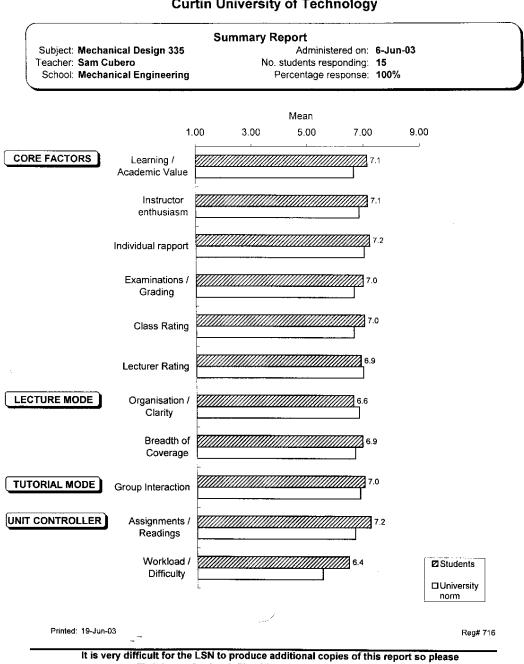


NOTE: "Mechatronic Project 234" taught students how to build and control their own mobile robot and weapon system (using an AVR microcontroller) to compete in a final Robot Wars competition (televised on Channel 10 News, Australia, June, 2006.)



Student Evaluation of Educational Quality (SEEQ) **Curtin University of Technology**

ensure you file it in a safe place! Should additional copies of the report be required there will be a cost of \$25



Student Evaluation of Educational Quality (SEEQ) Curtin University of Technology

ensure you file it in a safe place! Should additional copies of the report be required there will be a cost of \$25

LETTERS OF APPRECIATION FOR NEW MECH356 (Mechatronics) COURSE, Spring 2018 (I have copies of the original Emails)

Dear Dr. Cubero,

I would like to thank you for the massive effort and passion you put into teaching the course.

I personally found the course to be one of the best courses I have taken so far as I feel like I actually learned something useful. Even the theory problems were all linked to real-life applications (choosing a motor/circuit for company requirements).

The process of building the stair-climbing vehicle and then re-building and then re-building it again was, in my opinion, the core of what engineering is all about.

During my interview for a summer internship a while back, this project was one of the main things I could talk about. I talked about how I learned to program Arduino, make apps, design a model in CAD and actually fabricate it and so on. Thank you again for a wonderful learning experience. P.S. I ended up getting that internship, and I am loving it :)

Good evening Dr Sam

My written feedback about MECH 356

Dr Sam's main focus was to teach and instruct the basics of mechatronics to mechanical students. He focused more in linking the examples of the class with real life material (we can see it clearly in the project and final exam). I believe that Dr Sam made and put a huge amount of excellent work into building and constructing the course.

Dear Dr. Sam

The course was very helpful and it was well organized, everything was clear and all the HWs [HomeWorks] were clear and helpful. I did not attend many classes, nevertheless, I was able to understand all the HWs because they were clear.

Student Testimonials about the teaching work of Dr. Sam Cubero - Updated 9th January, 2020

The project was very interesting, I learnt a lot about the Arduino and how the size of the wheel affects the torque of the motor. I was studying about torque many years, but from this project I understood it more.

I applied to continue my master at Khalifa University, I applied for Master in Mechanical Engineering with Robotics concentration.

Dear Dr. Samuel,

I really enjoy taking this course and I had fun while learning and apply the

knowledge that I have in real life ...

Thank you

Good afternoon sir,

I wanted to say that I have learned so much from our Mechatronics course, it

opened my mind up to things I didn't know before and it was indeed an

experience I gained from and will try my best in the future to use this

knowledge and impart it into something useful in our community.

It was a pleasure being your student and thank you for your hard work with us.

Dear Dr. Samuel,

It was a really different course because I learnt many traits

that will help me in real life engineering and I appreciate that.

Thank you,

Shaima

Good evening sir,

It was a pleasure being your student and thank you for your hard work with us. You are the best Australian doctor I have seen and I know you will appreciate my efforts.

Hello doctor,

Rawdha from the 1 pm section told me that you were asking whether or not many people in the class are understanding or not. I personally feel like the

course material is much better than it was last year. I had some friends who took it last year and hated it because of how much material was covered. But I feel like we are covering just enough and it's much better. I also am enjoying the course and especially the task of the project... For me I feel like I'm understanding everything perfectly fine. Just wanted to let you know about that. Regards,

Shatha

Dear doctor,

One of my friends did take mechatronics last year and she said it was the hardest course ever because they learned so many electrical topics in such a short period. I believe quiz 1 wasn't too hard I also took time to solve the second question using 2 ways all they needed was to practice but I think some students don't like working on courses... nothing of what I was taught by you was hard to understand and you do answer questions whenever we get lost.... And what helped me in the quiz and midterm was the notes I took with you because they explain a lot... Thank you a lot for helping us through this course and for caring. Best regards, Rawdha

Dear Dr. Sam,

I just wanted to say that there are people in class that actually do appreciate all your efforts and hard work that you have put into trying to simplify the information and teaching us what we really need for real-world engineering. Not everyone will acknowledge the significance of your course until they take senior design project 2... Have a wonderful weekend,

Mayed,

MOODLE SURVEY COMMENTS:

11AM CLASS:

I'm totally fine with the way the course is taught and I don't have any issues with understanding. As a senior student that will graduate this semester, I find the way this course taught similar or better than other mechanical courses...

The course is important to our future and i think the doctor is really focusing on what really matters for our future jobs

1 PM CLASS:

I believe university is different than high school i don't need to be baby fed all the information in the class. all i need is the basics and i can work with it. thankfully this helped me in my senior design project because in the real world no one will think for you, sometime you need only the basics to get a perfect outcome. I have seen bad doctors but the mechatronics doctor is not one of them. i enjoy when he relates the things we learn in class to real world and how detailed he gets and he stimulates my thinking but generally I understand what is the class about and what is he talking about

WEBSITE & ADDITIONAL INFORMATION

At <u>www.samcubero.com</u> you can find:

- Many fascinating YouTube demonstration movies of projects supervised or designed by Dr Sam Cubero.
- "Teaching_Mechatronic_Engineers_2006.pdf": slideshow summarising successful teaching methods.
- "Reference_Letters.zip": testimonials and commendations from some students and colleagues (PDF files).
- "Subject_specifications.zip": subjects Dr Sam Cubero taught as examiner or assistant examiner/facilitator.
- Personal views on mechatronic engineering education & research work and future opportunities.
- Brief summaries of past, present and future research projects and novel inventions.
- Higher definition versions of videos are on a DVD disc, showing past research projects and experiments.

All of the topics and subjects mentioned on this website can be taught immediately as University-level undergraduate or post-graduate subjects. Lecture notes, lab materials, tutorials, assignment / exam questions and solutions have already been prepared or can be quickly created for immediate teaching, covering all of the topics mentioned. Such material can be used to teach an EA (Engineers Australia) or ABET (Accreditation Board of Engineering and Technology) accredited degree course in "Mechatronic Engineering", "Automation Engineering", "Manufacturing Engineering" and/or "Robotics / Control Engineering" to world-class or worldleading standards. Such courses can make major positive impacts on research activity. e.g. providing advanced skills for students to conduct Ph.D or Masters research. The technical content and methods of teaching (styles of learning and assessments) used in courses I have taught and created in the past are similar to (equivalent to, or even better than) courses taught in the 'best of the best' robotics, mechatronics and control engineering schools in the world, namely: MIT, CMU (Carnegie Mellon University), Stanford and the University of Pennsylvania. I always strive to learn the latest technologies and development tools, in order to teach the latest and most practical technologies, and to help students to become very competent and skilful as real-world problem solvers, product developers and project managers. I feel great satisfaction and joy when I see students demonstrate new technical skills and successfully complete design-and-build projects that actually work as intended! (In fact, out of over 40 design-and-build projects I supervised in Australia, all of the final prototypes worked successfully!)

VIDEOS & ACHIEVEMENTS OF MY PAST STUDENTS WHO APPLIED THE SKILLS I TAUGHT

Matchbox collecting competition I organized in 2005: <u>https://www.youtube.com/watch?v=5XCJC3RRZds</u> Bottle collecting competition I organized in 2013: <u>https://www.youtube.com/watch?v=fcJXgBdzMqQ</u> <u>https://www.youtube.com/watch?v=rKYYm4BSq3M</u> Smart gym final-year (senior design) project I supervised: <u>https://www.youtube.com/watch?v=pCnOz58B0Fs</u> Appearance on Channel 10 News, Australia, "Robot Wars" story: <u>https://www.youtube.com/watch?v=ozs-2eTEyko</u>

Videos of high-tech student projects are shown in my CV, and at <u>www.samcubero.com</u>

Several of my past students in Mechatronics had started their own companies like **Scientific Aerospace** (manufacturers of flying drones for aerial video, photography and surveying) – (one student I taught designed Australia's first working quadcopter UAV in 2005: See https://www.youtube.com/watch?v=ou6XzHKlvQg and https://www.youtube.com/watch?v=ou6XzHKlvQg and https://www.youtube.com/watch?v=MLxe3FuQ3v0), **Argon Robotics** (who designed robotic systems for the mining and manufacturing industry), and data management services, like www.use-verb.com and **CRM Online**. One student I taught in the past, Robert Reid, worked as a Robotics Engineer at **NASA** JPL (USA), designing novel asteroid scanners, autonomous navigation systems and robots for space applications. You can view videos of his amazing projects at www.linkedin.com and on YouTube. I also supported several industry projects, science fairs and engineering exhibitions in Australia, UAE and Malaysia, helping organizations like ThinkScience, ADIPEC, Innovator, TDC, IEEE, M2VIP, etc. I also supervised projects for different local companies (EVH Drilling, Bossong Engineering, Scooters Australia, R&R Sales Perth, QP Double-doc, etc.).

Email: <u>scubero@live.com</u> (or work Email: <u>scubero@pi.ac.ae</u>); Mobile: +971 5 6733 1526 (GMT +4)