FAQS (AND NOT SO FREQUENTLY ASKED QUESTIONS) ABOUT THE MONASH MM&RE PROGRAMS

Monash University in a nutshell
Monash University (50 years old in 2008), was incorporated by Act of Parliament of the State of Victoria, Australia as Victoria's second university. Its campus at Clayton in outer south-east suburban Melbourne became known as "The Farm" as distinct from the much older (1854) University of Melbourne: "The Shop".

Monash soon grew and developed a significant reputation for excellence in research and teaching in all of its Faculties.

Australia also had many colleges of advanced education that awarded 4-year degrees in engineering (among others). These were funded by the States. In the late 1980s, the Australian Commonwealth (i.e. federal) Government agreed with the States to take over funding provided that these colleges either became universities or merged with universities. Monash combined with the Chisholm Institute of Technology and the Pharmacy College in Melbourne, and the Gippsland Institute of Advanced Education in the countryside 2 hours east of Melbourne. Gippsland (80 years old in 2008) has had long experience in off campus learning.

While independent of government control, nearly all of Australia's 38 universities receive much of their funding from federal government, mostly based on student numbers or grants for research, but the proportion is decreasing.

Monash became the largest university in Australia, and has developed a global view. It has two growing campuses outside Australia: Kuala Lumpur, Malaysia; and near Johannesburg, South Africa; and a smaller presence in Prato, Italy. Monash is one of the "Group of 8" major universities in Australia. (See www.monash.edu.au for 300 000 pages of information!)

I am undecided between this program and doing an MBA?
Engineers Australia (IEAust) recently reported that "engineers and technical staff should keep up and extend their technical skills….general management training is no longer enough. An MBA no longer guaranteed improved earning power". Also from the IEAust: "Life Cycle Costing, Risk Management, Asset Management and Integrated Logistics Support: half of the future skills that engineers need in the public sector" : all covered in our programs.

Is the MRE program accredited?
The *undergraduate* programs for engineering in Australian universities are accredited by Engineers Australia, which conducts rolling reviews. This is similar to the case in the USA, where the ABET has this function, and other countries would have the same sort of arrangement. Engineering bachelor degrees in Australia, UK, New Zealand, USA and some other countries are mutually recognised under the Washington Accord.

Engineering programs beyond this – i.e. postgraduate or just called "graduate" – are not accredited by any external body. As in other countries, these are accredited by the university's internal quality control processes and rely on the reputation and standing of the university. At Monash, proposals for new programs and their units (i.e. "courses" in North America) are detailed in a stringent form, and pass from

a Department's Board to the Engineering Faculty's Education Committee, and so on to gain final approval. Regulations are drafted by the University legal department. Any changes in the programs must also follow this path. This process, although lengthy, ensures thorough scrutiny and a high quality outcome.

Programs to be offered outside Australia have an additional level of scrutiny and review to ensure that the offshore students have the same quality of offering as those in Australia. This is particularly relevant to distance education programs.

Is distance education for real? I read about "diploma mills" in the USA. How can I be sure that a Monash qualification is not one like they sell?
See our website- it is surely unlikely that a false university could set up so much information in its 300 000 pages. The term "Off campus learning" is now used as a more complete descriptor of distance education. This style of education is the only way to meet the needs of people located all over the world, and often in remote sites well away from any on-campus opportunities. Research shows that such study, coupled with working in the field at the same time, is a most effective way of learning.

Our collaboration with the University of Tennessee is further proof. UTK Engineering is ranked among the top 6% of engineering schools in the USA.

In my company, "reliability engineers" run condition monitoring and design plant improvements. Does your GradCertRelEng cover these activities?
The term "Reliability Engineering" has two meanings. One is what you say, and is part of our "Maintenance Management" stream. The other meaning is what is included in our GradCertRelEng program, and is essentially applied mathematics. Aerospace, military, automotive, electronic, and consumer product manufacturers dedicated to product quality and reliability find it of particular benefit. Much of this material is most relevant to "maintenance" and appears in other study units.

Sometimes my job at work builds up with a sudden high demand. What then if I cannot meet the deadlines for submission of assignments?
We regard the relationship a student establishes with the Unit Adviser as very important. Students are urged to keep in touch regularly by email. When emergencies arise, contact your Unit Adviser/s and request an extension. Unit Advisers can approve up to a week. Longer extensions need a formal application for special consideration.

Final grades are awarded soon after the end of the relevant study period. If all work has not been completed, a WH (i.e. With Held) grade is usual. Once the work is submitted as arranged, this grade is converted to the final grade.

Can I space out the studies over a longer period? Can I study less than the usual 2 units (i.e. courses, or subjects) in a semester?
Yes, it is allowable to study less than the usual two units in a semester (i.e. 4 per year). As experience shows that part-time study load should not be more than half that of an on-campus student, it is not recommended to study more than 2 units at a time.

I see that most units have an examination. How about if I am unable to sit the examination at the date set?
An application for special consideration can be made for the examination to be sat at another time. The request must give good reasons and be made in advance of the set date (unless in the case of illness).

How about if some units require access to plant data at my workplace? My company does not like such information going outside.
You may rely on the integrity of Monash staff. Your Unit Adviser is the only person to see your submissions. If you wish, you can disguise the data designations. This can also be done in units which have a presentation to fellow students. Since these programs began, no complaints have been received from students on this issue.

Who are the teaching staff, and how can I be sure that they know their subject?
The teaching staff comprises academics on campus and sessional staff not on campus. The academics have long experience or interest or both in their subject fields, and hold tenured positions as Senior Lecturer or Associate Professor. (The term "professor" in Australia follows the British practice, and is a rank or title for Heads of Departments or holders of Chairs, and is not a generic term for an academic. "Lecturer" is the most common generic term, or as we use, "Unit Adviser")

See their details on our website: www.gippsland.monash.edu.au/science/mre

Our MRE sessional staff have been selected for their particular expertise in their field, and some also have websites.

I see that the study materials are mostly paper-based. Isn't this a little old fashioned?
We believe that it is the message, not the medium, that is important. Student feedback is that paper-based is the most convenient form. Sections can be removed for reading when travelling, and an overview is readily possible. Research also shows that the eye takes in material in print form on paper 30% more effectively than screen-based text.

Notwithstanding the above, studies are web-enhanced, with each unit having its own dedicated Monash University Studies Online) Blackboard site. Most contain further resources and activities.

All units have a Unit Guide, which contains administrative details and assessment information; a Unit Book, with the study guides; and in most cases, a Reader of selected resource materials and/or a CD/DVD. A few units require and refer to a textbook that must be obtained separately.

The required units as set out in the website do not best meet my needs. Are there any other choices possible?
Yes, after studying the unit descriptions, you can propose units other than the standard pathway for approval. Credit can be requested for previous postgraduate studies completed at a university that match closely any of our units. Such credits are rarely granted, as it is required that they must have included an examination in its assessment and were not part of an award that was completed (i.e. we do not double-count).

Some students complete one or more of our units towards an award of another university, and they enroll as "Single Unit" students. Fee arrangements may differ, according to the arrangements at their base university.

I have never studied by "correspondence" – in fact, it is years since I studied anything formally.
Many of our students are in this situation. The average age is about 38, with many older. Our program is not correspondence study as such. We certainly provide study materials, but these are only a start. We encourage students to read widely, and think, to decide their responses to assignments. Naturally, in subjects where calculations are necessary, then there will be correct answers. In others, responses may be a matter of opinion, and defence of your response may be appropriate.

What level is the mathematical content in your programs?
Our experience has shown that even those with no former (or formal) mathematical training can still achieve excellent results, provided they are willing to exert the required effort.

I'm a civil engineer – your study units look "mechanical" or "electrical' in nature.
Nearly all the course material applies to the management of any physical asset. This area is truly inter-disciplinary. Some units do feature machinery aspects, and many civil engineers use machinery such as pumps and mobile plant. The Infrastructure Engineering and Management programs offered by Monash Civil Engineering may be more appropriate.

I have trade qualifications. Can I apply?
Some of our students have a trade background, and such applicants are asked to show their capability via their CV. Evidence of responsibility at work is a good indicator. You are welcome to study two units on a "not for degree" basis. Completion with 65% average grade enables entry with full credit into the relevant Graduate Certificate, with potential for onwards advancement. Several of our Master's graduates advanced via the Graduate Certificate and Graduate Diploma. (NB this entry option is not available for applicants in North America enrolling via the University of Tennessee).

I do not understand the fees. What is a Commonwealth Supported Place and HECS-HELP?
Australian citizens, permanent residents, and New Zealand citizens living in Australia have the cost of their studies subsidised by the Commonwealth Government. See our School site www.gippsland.monash.edu/science/mre for outline details and www.goingtouni.gov.au for full details.

Students not in those categories pay a fee: $A2300 per unit in 2010 (or $2175 for local "not-for-degree" students. Different fee arrangements apply for North America). Fees usually increase each year with inflation.

What happens after I apply?
If your application is complete, and is approved, then you are sent a Letter of Offer, plus details of how to accept a place and obtaining your ID card (a passport type photo is required). Once your ID has been issued, you can set up to access the Library and other services. Students have found the ID card gets them student discounts at many places. The study material and other general information is sent to you in time to start in late February (or mid-July for Semester 2).

Graduation?
When the completion of a program nears, you need to apply to graduate. Graduation takes place at set dates through the year. Those graduating can attend a ceremony, but many choose to graduate *in absentia*, with their testamur mailed after the graduation date.

How did the MRE programs start?
A new Graduate Diploma program was developed in this field in the mid 1980s by Len Bradshaw, for delivery by distance education mode to suit the many potential students working in remote areas. The plan was endorsed by a panel of industry representatives. Initial students were enrolled in 1985, and the program has operated ever since. (Len is now editor and publisher of the quality quarterly ASSET MANAGEMENT & MAINTENANCE JOURNAL, and a well known trainer).

Later, four units of the Graduate Diploma were designated a Graduate Certificate. The Graduate Certificate in Reliability Engineering was developed separately with industry sponsorship and involvement. In 1998, the Master's degree was created, combining these existing streams. In 2001, further refinement was made to the structure. Study materials have been updated continually ever since.

What do MRE students say about the programs?
Here are just some of the many unsolicited comments sent by students:

MONASH UNIVERSITY MRE PROGRAMS: SOME STUDENT FEEDBACK, MOSTLY UNSOLICITED.

The unit has been very useful in putting things into context rather than getting bogged down in system details and complexity, which can often be the case once you start delving into the technical causes of things

Very challenging from a time standpoint. However I found both assignments enlightening. I learned a few things that can be incorporated at my work place which is what this is all about. Thank you.

Interesting, a number of the skills learnt in reliability engineering keep coming up at xxxx due to the application of LEAN here based on Toyota Manufacturing principles (eg TQM & Pareto analysis).

I have just completed MRE5001 & MRE5002 which I found most helpful, and I am looking forward to completing the remainder of the course so I can progress towards more senior maintenance management roles.

Thanks for the good communications that you show. It a bit comforting to me since this is the first experience that I felt a bit "remote" now (close to reality) that I did not had in the
previous three Universities that I joined.

I completed the exam yesterday and all was pretty good. I really enjoyed the course. I must say the more I study, research and learn the more I realize that what I thought was good maintenance is just old school past practice. I am finding that my current company likes the idea of CM but dosn't have the time. It can be frustrating. Again, Thanks for the informative semester. Looking forward to March.

Thanks, I have enjoyed this unit as I was able to relate it to my work place and get some actual outcomes of current issues and re-think some of the happenings throughout my career with a different base line of knowledge to draw some interesting (some cases scary) conclusions to.
Although I feel I have struggled with the work load as my job is very demanding with a lot of travel and extended hours of work I appreciate your understanding for my late assignments, thanks very much, better get back to xxxx now.

...until taking this unit I felt that NDT was limited to inspection of pressure vessels, piping, and tanks. I was surprised to learn that NDT included testing procedures for other assets. This key learning alone, in my opinion, justified the effort and expenditure for this unit.

I have found this unit interesting and useful. There is a great deal of practical day to day material as well as a peppering of theoretical/calculation material and this is good mix.

Thanks again for an enjoyable course and I am looking forward to next years program.

I have found the unit (indeed all four units) that I have undertaken in the Maintenance Maintenance program to have been of real value within my job role as a maintenance practitioner. Thanks for the level of feedback on previous

assignments from this and other units. Not an experience I'm used to after studying at xxxxxx University. Greatly appreciated.

This is the aspect of doing Off Campus Learning & working in a directly related field of study that I am enjoying most - the opportunity to immediately apply new skills and ideas learnt
This course has opened my eyes to CM and through the presentations allowed me to educate and gain more acceptance into CM. We are approaching the threshold of something great with CM which is very important in a business considered as Mature.

Not sure how much feedback you get from past students but I certainly consider the Masters one of the best career moves I've ever made.

This assignment came at the right time. I am on the steering committee for our new ERP installation and am working with our warehouse to get all of our spares in the new software. With this, we can level our spares somewhat and see if there is any expected cost savings compared to what was ordered in the past which was just buy by the box and order more when we ran out.

Just to make you aware that, apart from a few frustrations, I have never learned so much on any courses I have ever done. Both of the units have been absolutely fascinating and are incredibly useful- I have been amazed at the transformation in the way I've started looking at work related problems and the wider logistics issues related to the associated activities. The volume of information I've ploughed through over the last few weeks has been phenomenal, more than I've ever done and it has left me incredibly motivated and enthusiastic- it has been a very long time since I've felt so.

It has been quite hard going though as I don't have time to study when I'm over here in western Asia and with the units being over one semester there is little slack available to me as I'm away for 31 days in every 56 days. The one benefit in this I suppose is that I cannot put anything off for a day so there is no oh I'll get it tomorrow option available- I need to do it now!

In my opinion it should be a compulsory part of all engineering students education; towards the end of their undergraduate degrees. It would provide huge benefits to the industries they end up serving as well as their countries economy- I suppose that's why the MRE programme came to being.

In the end I learned a huge amount from xxxxx, an incredibly clever and knowledgable chap and someone else I now have great admiration and respect for.

Thank you and your course advisors. I very much look forward to the next two modules, if I can get through the examinations.

This assignment asked me to provide a policy and a manual for "your organization". My organization is xxx. I work at the xxxx refinery in xxxxxx. Therefore, the information included in this assignment is real information from my organization. I was intrigued by the thoughts of a Reliability Policy. Until I took this unit, I had never heard of a Reliability Policy and had never seen a Reliability Policy. Today, I showed my assignment to my supervisor. I discussed the advantages of having a Reliability Policy with him and suggested that he discuss developing a Reliability Policy with our plant leadership team. He was open to this suggestion.

One reason that I like taking Monash courses is that I feel that I can apply them directly to what I am doing at work.

I just want to thank you for being a great course co-ordinator for MMRE the past 2 years. I certainly have a learned a lot from it that can be applied to my work at the Smelter. Also, thank you for your guidance in 7094, the project I did certainly added value to the company and my knowledge of our equipment in the Pitch Distribution System.

I've been at xxxxxxx Power Station for 6 weeks now as the Maintenance Manager and loving it. There's certainly some issues here but we'll steadily work through those. Success in my mind was no doubt due to the Masters course via Monash and how I applied it at my last job (and the opportunities available and taken there too, of course). Not sure how much feedback you get from past students but I certainly consider the Masters one of the best career moves I've ever made.

I really must point out again though, that anyone doing well in this program owes all to the quality, depth, presentation and delivery of the content ... you have an exceptional and motivating teaching staff.

I am ecstatic! I really want to thank you for all your assistance and am very proud to be a Monash MRE graduate. It has been a real pleasure for me getting to know so many great people both faculty and students. I enjoyed studying the MRE curriculum and I feel that I have learned a lot and am applying various learnings in my workplace.

I want to take this time to thank you and your colleagues for the guidance. I have found the faculty and program to be inspiring, current (though grounded in historical development), and practical. Knowledge and skills acquired are immediately applicable to real-world situations, making possible the direct implementation of continuous improvement. I have been motivated to continue further study.

The course was interesting, thorough and useful to anyone in or contemplating a career in Maintenance or Reliability Engineering.

The course was exactly what I wanted it to be, so thank you. It was interesting and very thorough, and I'm sure it will help me become a successful reliability engineer in the years to come.

Thanks again for a great unit, with some great content, good notes and references and logical layout.

I enjoyed the subject because it has a very close alliance to what I am trying to implement here. I am struggling to balance work/ study life with the new role. 13-14 hour days and very little time with the three kids on week nights. Its great to see that the hard work is paying off. Just got to get the time to study for the exam and I should be right! Have a great end to 2007!

Yes - I agree with you that it has been most interesting to do this subject from the other angle. I must say I feel this has been even more beneficial for me and my role. I would certainly recommend this subject to anybody in my situation and combined with your vast knowledge in this area and teaching enthusiasm have to say it has been one of my most enjoyable ones. Thank you so much as well.

Your Unit was terrific. I particularly liked the options for the assignment questions, allowing the student to peruse to the most topical

questions or their passion. I would also like to pass on general feedback to say how much the MRE program has helped me in my career and day to job. I apply concepts and techniques I have learnt in the MRE Program on a daily basis.

Please find attached Assignment 3. I believe this has directly impacted my career, as I have been successful in furthering my career with xxxxxxx, at the LNG plant in yyyyyy. I will fill the role of Maintenance Team Leader, starting in Mid October - busy couple of months ahead!!!!

It may not come across through my assignments but I have performed a great deal of research and interviews during my studies and learned heaps about maintenance, industry, my company and myself. Time management has been a small issue but coming under control. I look forward to continued studies.

Also I have just finished my Masters in Maintenance and Reliability Engineering and I wish to thank-you for all your help and support you gave me over the difficult 5 years it took me to complete (over 10 years). Working in stressful jobs, raising a young family (4th due in 1 week), renovating/extending a house and trying to have a life, is a difficult juggling trick (did I mention the chainsaw and cat in there). I hope fate ensures our paths keep crossing and I wish you all the best in the future.

Continuing to enjoy the unit, except I showed my boss this assignment which I completed primarily in my own time and he liked the fault tree and wants me to produce a FTA for conductors and connectors giving me more work. Great stuff! as my employer and I are getting value out of it, I don't know about the extra work for me though! :-)

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Thank you very much for your comments regarding my assignment. I really appreciate your practical approach in teaching and well organised way of delivering this course.

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Thanks, I have enjoyed the course and have gained
some excellent knowledge, now to put it into practice.

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Thirdly, I want to congratulate you and your team and the improvement of your study material and learning mechanism which will help the student a lot in increasing their enthusiasm and eventually their competency level on the subject. As a student, I feel Monash really care about teaching quality and try its best to make off-campus student being part of Monash community. This is my advantage in joining this off-campus program. I will promote this program to my colleague for their interests.
Keep up a great job !!

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I very much enjoyed the assignment as it is yet again very relevant to my experiences in my work place. I have found the course content up to now very much in line with real life experiences.

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It's compelling to discover how immediately relevant much of the unit information is.

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There is a great amount of studying to do, but interest in the subject eases the load. Juggling these commitments along with the turbulence and steadily-increasing efforts required at work is a challenge. Throw in a busy personal life that my wife and I have with 3 teenagers and home upkeep, occasional business travel away (I am in Minnesota next week at the XXXXXX paper mill), and a little fitness routine and there isn't much time left.

The clear, concise writing and format styles of the various Unit Books are a learning experience.

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However it was good talking to you at the graduation the other day. I just wanted to pass on my appreciation for the course and express what a benefit it has been for me vocationally and of course financially. I would recommend any level of the course to anyone serious about a career in Maintenance.

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Applied my learning from the unit I studied, and gained $US80000 value for my company. (US)

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Very much looking forward to doing this course. Have spent a fair bit of time, over the last few months looking (and speaking with course coordinators) at eg xxxxxxx uni, yyyyyyyy Uni (only 35 miles from my home so would've been ideal) and zzzzzzzz Uni who all do something similar.

However, not wishing to be patronising their modules did not seem as interesting, courses were less flexible and the universities were not as highly ranked (not even close) in global terms as Monash; additionally their course coordinators were not as helpful- costs were all much of a much though. (NEW UK STUDENT)

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I've enjoyed your teaching and leadership. This afternoon I will be involved in developing the 2006 plan for our predictive maintenance group and I will use material I have picked up from your condition-based monitoring class in the plan. That is probably the best thing about the program - it is practical and directly applicable.

Thanks for all you have done. Good luck as you go forward. (USA student)

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Well, Ray, Sue and I are enjoying our change of scenery in PNG. My boss (also an MMRE grad) is good to work with and the senior management here are also somewhat like minded. It isn't the constant battle my team and I faced at XXX over the last few years. While we may have effected the equilibrium there, it was a tough assignment although at the same time rewarding. My team and I laid the foundations for significant changes currently progressing for the asset management of the facility as opposed to daily production targets

driving them. The training from Monash and your program was the basis of the new foundations we laid.

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Thank you Ray, I would say that the MRE studies got me through the front door and through the selection criteria and then my experience got me over the line. More significantly the MRE studies gave me the confidence to apply for the job (I ended up with 5 offers) and made me want to work directly in the MRE field.

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I still work in Offshore Oil & Gas Industry with Project Management and have earned a wider appreciation and respect for my documented post project (operational)skills.
I have just left xxxxxxxx Heavy Industries Co. Ltd. in Korea after over 3 years. Next week I start with a zzzzzzzz affiliated company in Norway as their Project Manager for some contracts for qqqqqqqqq in Rio de Janeiro, Brazil. The company appreciate very much the experience and skills of grey haired personnel and especially the effort of graduating with a Master Degree from Monash University at the age of 57. The oil industry is booming and skill shortage requires those > 55's to be appreciated and sought after for their skills. (Student from Norway, but mostly working elsewhere)

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I have gained a lot from it. It has given a lot of structure to things I had learned on the job, as well as the huge amount of new stuff I have learn. It has been influential in getting 3 jobs so far. (the first job as a Maintenance Planning Superintendent, a second job as a Senior Project Engineer in Argentina, and now my current job as Regional Maintenance Manager). I have taken it pretty seriously, although this year it has been very difficult because of the long work and the travel and personal stuff.

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From a personal point of view and for your feedback, I am of the firm belief that the Monash Program in Maintenance and Reliability is a great value add investment for Australia and the individual. Your efforts and those of the faculty are appreciated.

P.S.: part of me being selected for this new job is my MMR&E background and experience from Monash. I'm grateful that I have this opportunity.
Thanks for your supports.