

How to be a successful University Academic.

This article is a guide on how to succeed within the world of university academia. It is based on my own academic experiences and the observation of academic colleagues. It is a toolkit for survival in the top universities of the world and will be of value to young academics starting what should be an exciting and rewarding career as a university academic.

Universities have existed in different forms for many hundreds of years and during that time the world has changed and naturally university life has changed too. This article was written in 2013 and even in my own academic lifetime of forty six years I have seen substantial changes. Universities are very dynamic organisations, people come and go, economic prosperity for any one country can dramatically change and of course developing technology continually changes the way we live and communicate. The pace of change appears to relentlessly accelerate and the way universities operate in for example 2023 may well be very different to 2013. So, let us limit ourselves to a top international university in 2013.

The core of academic life can be divided into three areas: **Research**, **Teaching** and **Administration**. Most universities would expect a young member of staff to be competent in all three.

The initial emphasis for a top university will be **Research** excellence. You, the aspiring academic, will need to be able to show that you are knowledgeable, interested and articulate in one or maybe more specialist subjects. The choice of subject can be important. My own experience is in science and technology and I have seen subject fashion change dramatically. Polymers, Information Technology, Materials, Biotechnology, Nanotechnology and Energy are all subjects that have come and gone out of fashion in the last forty years. I am reminded of the advice from one of my Bristol University academic mentors, the late Sir Charles Frank. “Stick to science rather than technology.” Frank was a world class scientist and so you might expect him to say that. He was however very aware of industry’s needs and acted as a high-level consultant to companies such as DeBeers. The late Pierre de Gennes was also a world class physicist who worked on the fundamentals of ‘soft matter’, but he too was able to convey his scientific knowledge to companies such as L’Oreal. The message here should be that a deep understanding of fundamental subjects in either the Arts or Sciences can later be applied to contemporary problems, the reverse is not necessarily true.

The choice of subject for an aspiring academic is crucial. However, of equal importance as the choice of specialism is the clarity of thought, the vision, the passion and the command of that subject that you possess. Almost certainly the subject will have come from your PhD academic study and training but you need to develop your own vision of the future, not necessarily that of your most recent supervisor. You also need to have a plan.

University research requires funding; the money has to come from somewhere and academic independence can often go with financial independence. In the past there were mainly wealthy academics, scientists and historians who did not need to worry about the security of a salary or

the requirements of a University. Today, most university academics are paid by the University or Research Institutes and there is an expectation that this payment will be rewarded by research and or teaching. Universities have become more and more like large commercial businesses and this unfortunately has now developed into one of their main characteristics. Universities do, however, have to be economically viable and their financial wealth is often linked to their academic excellence.

Most top universities would now expect research active academics to be able to obtain their own research funding. There might be an initial 'golden halo' tranche of research money, but within a couple of years there would be an expectation that you would be able to fund your own research effort. This requires both skill and good luck. Research grant funding success rates can vary wildly, but a success rate of between 10-30%, even for high quality applications, might be the norm. Academic freedom is an important aspect of creative research and this must be handled carefully by both the academic and university. On the one hand academics should respect the certain constraints and expectations that universities have on their staff, whilst on the other hand universities need to allow individual academics the freedom to explore new ideas and concepts. This sometimes requires a delicate balance from both sides.

Research excellence should be a core objective, however, over the last forty years **Teaching** excellence has become important too. When I started as a University lecturer in the 1970s, appointments committees did not appear to concern themselves too much with teaching ability. This has now changed. The introduction of student "satisfaction" questionnaires and direct substantial payment by students of tuition fees has altered the balance of power between lecturer and students. Lecturers are now providing a teaching service and as with any other service industry, good service is rewarded and poor service not accepted. My own learning curve for teaching was slow. Now the expectation is for fast track high quality teaching right from the start. I am not an expert in education methods but what I have found worked for me was to pitch my lecture content at about the top 10-20% of the class. Dumbing down might get popular questionnaire responses but generally the class will spot this failing a mile away. Going for the highest level can work if you yourself are absolutely brilliant. Initially I know I was far too serious a lecturer. You should be yourself, a smile always helps and you should enjoy giving a lecture. I do recall a couple of lecturers at Cambridge who transformed themselves in a lecture room to completely different people. They became actors, showmen and were very good at it too! I suspect it is easier to train someone to be a good lecturer than it is to train someone to be a creative researcher but both research and teaching excellence should be high on your agenda and probably in the first instance be given equal weighting of time and energy.

Finally there is **Administration**. Most Universities now expect even young academics to contribute to various administrative duties and committees. This might initially seem a little surprising as over the past couple of decades the number of university administrative posts have steadily increased. There are now department teaching administrators, research administrators and a multitude of support staff. University structures become ever more complex with Departments, Teaching Schools, Research Schools and a multitude of Pro Vice Chancellors and Vice Chancellors to administer the administration. As a young academic there will be many committees where you can make an impact, become noticed and become 'part of

the University'. Some people enjoy being on committees and if your ambition is to achieve high office within the university then your active performance in committees will provide a springboard for promotion within the complex structure of University hierarchy.

Promotion within the university system can benefit from some forward planning. Publication in top quality journals and 'being noticed' are things that continually need to be worked on. There are now many metrics that can be used to assess publication performance, but often promotion comes down to referees written submission. To this end you need to nurture leading academics authorities in your particular field at both a National and International level. This may sound cynical but having supporters both inside and outside your own university is a strong route to promotion. If you have the opportunity for a sabbatical period you should take it and ideally go abroad to another university. Attendance at International conferences is also a good way to rank your own work against others and promote your own university and career. Travelling the world as an academic is not a chore, it is one of the big perks of what should be a fascinating and rewarding career.

Malcolm Mackley

December 2013

Malcolm Mackley is a Fellow of the Royal Academy of Engineering, Emeritus Professor of Chemical Engineering at the University of Cambridge and Emeritus Fellow of Robinson College Cambridge.