

Tips for Graduate Research Supervisors

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Tip Number 2 – Understand Student Skills Outcomes

Description	Outcomes
<i>Basic Skills</i>	An ability to conduct a comprehensive literature review.
	Based upon the outcomes of the literature review, and identified knowledge gaps therein, an ability to systematically develop a hypothesis which needs to be investigated rigorously.
	An ability to systematically investigate and consider the ethical implications of investigating the hypothesis – particularly where a hypothesis may pertain to humans or animals.
	An ability to develop/formulate a methodology that can be used to explore a hypothesis, within the ethics guidelines of the university environment.
	An ability to develop instruments (experiments, models, surveys) that can provide factual evidence to support or contradict the hypothesis.
	An ability to systematically aggregate and analyze data in order to determine the efficacy of the hypothesis.
	An ability to draw specific conclusions based upon the factual information derived from the methodology.
<i>Professional Research Skills</i>	A capacity to assess the health and safety implications of a research methodology and experimentation program.
	An ability to conduct one's research to an <i>open hypothesis</i> that does not predispose the research methodology and results to a particular outcome.
	An ability to act, at all times, as an impartial observer that presents a balanced view of the work of others as well as his/her own work.
	An ability to understand the broader implications and value of the contributions and value of one's research – within the research field and within the commercial/societal context.
	An ability to understand the context and relative contributions of one's own work in the broader field of endeavor – for example, is the postgraduate research an insignificant input in the context of an area that has already had several thousand person-years of effort already expended within it?

<i>Personal Professional Integrity</i>	An ability for critical self evaluation – the willingness to openly present and compare the worst possible interpretation of one's own work against the best possible interpretation of others' work.
	A capacity for humility/modesty in relation to one's own research – an ability to avoid overstatement and to allow the facts to speak for themselves.
	An ability to function in a team environment where individual strengths, differences and weaknesses are used to create a whole which is greater than the sum of its parts.
	An ability to put to one side one's own personal and career objectives in the search for knowledge – more specifically, a preparedness to put one's career on the line when the ethics of research or integrity of knowledge are threatened.