

## **Report: Employability survey of science students**

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**Survey aim:** To gauge the perceptions of science students with regard to their readiness for employment.

**Survey methodology:** Students were approached in level three science units and asked to complete a questionnaire. 300 surveys were handed out and 258 students responded, showing a return rate of 86%. Responses to the survey have been grouped by disciplines (Table 1), postgraduate intentions (Table 5) and whether they are enrolled in single or double degrees (Table 2). Further details of degree types can be found in Tables 3 and 4.

### **Summary of findings by survey item:**

**1. I feel I will have no problem gaining employment in my field.**

The majority of students in all analyses were unsure about this statement (Table 6).

The exception was students in Earth Sciences who were the only group who agreed with this statement (Table 8). Biology and Biomedical Sciences students were most likely to disagree with the statement (Table 8). Students preparing for employment immediately after their degree were more likely to agree with the statement than most other groups (Table 10).

**2. I understand what employers are looking for in employees.**

The majority of responses indicated that students are unsure that they understand what employers are looking for in employees (Table 6). Chemistry and Earth Sciences students were most likely to report that they understood what employers look for in employees (Table 8).

**3. I would feel confident in preparing a job application to specific selection criteria.**

Most student responses indicated that they were unsure about their confidence in preparing a job application to specific selection criteria (Table 6). Many students agreed with the statement, but this varied amongst disciplines (Table 8). Maths, Earth Sciences and Physics students reported overall agreement with this statement (Table 8). Biology students tended to disagree with the statement (Table 8). Students enrolled in double degrees or with the intention to continue further study were more likely to indicate they agreed with this statement (Tables 9 & 10). Students indicating they were looking for employment upon finishing their degree were also more likely to agree with this statement (Table 10).

**4. I would feel confident in attending a job interview and would know how to “sell” myself.**

Student responses indicated a confidence in performance in job interviews as they generally agreed with this statement (Table 6). Exceptions were Maths students who were unsure about their response to this statement (Table 8). Students within a single degree course who were planning employment upon completion of their degree were also unsure about their response (Table 7).

**5. I would be interested in learning about ways I may increase my chance of finding work in my field.**

Students generally agreed with this statement regardless of course, discipline or future plans (Table 6). Students enrolled in a single degree course who were planning employment upon completion of their course showed the most agreement to this statement (Table 7).

**6. I know where to look for work in my field.**

Most students indicated they were unsure of their response to this (Table 6). Earth Science students were an exception as more students agreed with this statement (Table 8). The largest disagreement to this statement came from Biology students (Table 8).

**7. If I understood the skills employers were looking for my chances of finding employment would increase.**

The majority of students agreed with this statement regardless of degree, discipline or plans for the future (Table 6). The strongest agreement was amongst students planning to commence employment after completing their degree (Table 10).

**8. If Monash University Science Faculty offered a structured unit covering employability skills that could be credited towards my degree I would consider enrolling in it.**

The majority of student responses were in agreement with this statement (Table 6). The strongest agreement was from Biology and Biomedical students (Table 8) and from students enrolled in single degrees who were either unsure of future plans or looking for employment upon completion of their degrees (Table 7). The largest proportion of students who disagreed with this statement came from Physics, Maths and Earth Sciences (Table 8) or were enrolled in double degrees (Table 9).

**9. I can already identify ways that I have demonstrated the following skills and feel that I could justify these to a prospective employer.**

- a) Communication**
- b) team work**
- c) problem solving**
- d) using initiative**
- e) planning and organisation**
- f) self management**
- g) learning**
- h) use and development of technology**

Students tended to agree with these statements regardless of subject area, degree or plans for the future. The levels of agreement differed and results are shown in Table 11. Students see their strengths in; learning, problem solving and team work (Table 11). The skills areas that scored lower agreement were; use and development of technology, using initiative, planning and organisation and self management (Table 11).

## Survey details: characteristics of respondents

**Table 1: Discipline**

<b>Discipline</b>	<b>Number of respondents</b>	<b>Percentage of respondents</b>
Biology	55	21
Biomedical Sciences	74	29
Chemistry	27	10
Earth Sciences	28	11
Mathematics	43	17
Physics	31	12

**Table 2: Course type**

<b>Degree Type</b>	<b>Number of respondents</b>	<b>Percentage of respondents</b>
Double Degree	85	33
Single Degree	173	67

**Table 3: Double Degree courses**

<b>Degree</b>	<b>Number of respondents</b>	<b>Percentage of respondents</b>
Science/Arts	22	9
Science/Commerce	8	3
Science/Computer Science	3	1
Science/Education	7	3
Science/Engineering	29	11
Science/Law	10	4
Other	6	2

**Table 4: Single Degree courses**

<b>Degree</b>	<b>Number of respondents</b>	<b>Percentage of respondents</b>
Behavioural Neuroscience	2	1
Biomedical Sciences	19	7
Environmental Science	7	3
Science	145	56

**Table 5: Future Plans of Respondents**

<b>Future Plans</b>	<b>Number of respondents</b>	<b>Percentage of respondents</b>
Further Study	95	37
Employment	90	35
Unsure	64	25

## Summary tables:

Responses consistent with overall majority responses are highlighted yellow. Most common responses that differ to results as a whole are highlighted blue.

Questions	All Results % Response		
	Disagree	Unsure	Agree
Q1 I feel I will have no problem gaining employment in my field.	20	<b>54</b>	26
Q2 I understand what employers are looking for in employees.	10	<b>50</b>	40
Q3 I would feel confident in preparing a job application to specific selection criteria.	20	<b>40</b>	39
Q4 I would feel confident in attending a job interview and would know how to “sell” myself.	21	36	<b>44</b>
Q5 I would be interested in learning about ways I may increase my chance of finding work in my field.	2	8	<b>91</b>
Q6 I know where to look for work in my field.	26	<b>51</b>	23
Q7 If I understood the skills employers were looking for my chances of finding employment would increase.	2	16	<b>82</b>
Q8 If Monash University Science Faculty offered a structured unit covering employability skills that could be credited towards my degree I would consider enrolling in it	20	21	<b>59</b>
Q9a communication.	3	24	<b>73</b>
Q9b team work.	2	12	<b>86</b>
Q9c problem solving.	3	16	<b>81</b>
Q9d using initiative	3	27	<b>70</b>
Q9e planning and organisation	3	26	<b>70</b>
Q9f self management	5	23	<b>72</b>
Q9g learning	0	10	<b>90</b>
Q9h use and development of technology	3	28	<b>68</b>

**Table 7. Results of the questionnaire for single science degree students who are unsure of post-graduation intentions or who will be seeking employment**

Questions	Single Degrees Employment/Unsure		
	% Response		
	Disagree	Unsure	Agree
Q1 I feel I will have no problem gaining employment in my field.	20	<b>58</b>	22
Q2 I understand what employers are looking for in employees.	6	<b>54</b>	40
Q3 I would feel confident in preparing a job application to specific selection criteria.	20	<b>45</b>	34
Q4 I would feel confident in attending a job interview and would know how to “sell” myself.	22	<b>41</b>	38
Q5 I would be interested in learning about ways I may increase my chance of finding work in my field.	0	3	<b>97</b>
Q6 I know where to look for work in my field.	28	<b>51</b>	22
Q7 If I understood the skills employers were looking for my chances of finding employment would increase.	1	12	<b>87</b>
Q8 If Monash University Science Faculty offered a structured unit covering employability skills that could be credited towards my degree I would consider enrolling in it	8	28	<b>65</b>
Q9a communication.	4	24	<b>72</b>
Q9b team work.	0	16	<b>84</b>
Q9c problem solving.	2	16	<b>82</b>
Q9d using initiative	0	31	<b>69</b>
Q9e planning and organisation	6	35	<b>58</b>
Q9f self management	9	24	<b>68</b>
Q9g learning	0	13	<b>87</b>
Q9h use and development of technology	4	38	<b>58</b>

**Table 8. Responses by discipline**

Questions	Biology % Response			Biomedical Sciences % Response			Chemistry % Response		
	Disagree	Unsure	Agree	Disagree	Unsure	Agree	Disagree	Unsure	Agree
Q1 I feel I will have no problem gaining employment in my field.	27	<b>60</b>	13	30	<b>55</b>	15	15	<b>50</b>	35
Q2 I understand what employers are looking for in employees.	13	<b>47</b>	40	14	<b>47</b>	39	7	44	<b>48</b>
Q3 I would feel confident in preparing a job application to specific selection criteria.	<b>35</b>	33	33	20	<b>46</b>	34	12	38	<b>50</b>
Q4 I would feel confident in attending a job interview and would know how to "sell" myself.	29	33	<b>38</b>	20	35	<b>45</b>	23	31	<b>46</b>
Q5 I would be interested in learning about ways I may increase my chance of finding work in my field.	0	5	<b>95</b>	1	5	<b>93</b>	4	11	<b>85</b>
Q6 I know where to look for work in my field.	35	<b>58</b>	7	28	<b>51</b>	20	11	<b>56</b>	33
Q7 If I understood the skills employers were looking for my chances of finding employment would increase.	0	18	<b>82</b>	3	16	<b>81</b>	4	15	<b>81</b>
Q8 If Monash University Science Faculty offered a structured unit covering employability skills that could be credited towards my degree I would consider enrolling in it	7	19	<b>74</b>	14	19	<b>68</b>	23	27	<b>50</b>
Q9a communication.	4	31	<b>65</b>	5	19	<b>76</b>	0	22	<b>78</b>
Q9b team work.	0	7	<b>93</b>	1	4	<b>95</b>	4	19	<b>78</b>
Q9c problem solving.	2	22	<b>76</b>	7	18	<b>76</b>	4	22	<b>74</b>
Q9d using initiative	5	15	<b>80</b>	0	33	<b>67</b>	4	37	<b>59</b>
Q9e planning and organisation	0	20	<b>80</b>	3	26	<b>72</b>	0	33	<b>67</b>
Q9f self management	5	16	<b>78</b>	7	26	<b>68</b>	0	26	<b>74</b>
Q9g learning	0	7	<b>93</b>	0	9	<b>91</b>	0	15	<b>85</b>
Q9h use and development of technology	4	35	<b>62</b>	1	34	<b>65</b>	4	22	<b>74</b>

Table 8. cont Questions	Earth Sciences % Response			Maths % Response			Physics % Response		
	Disagree	Unsure	Agree	Disagree	Unsure	Agree	Disagree	Unsure	Agree
Q1 I feel I will have no problem gaining employment in my field.	4	36	<b>61</b>	14	<b>51</b>	35	13	<b>61</b>	26
Q2 I understand what employers are looking for in employees.	4	43	<b>54</b>	5	<b>62</b>	33	10	<b>55</b>	35
Q3 I would feel confident in preparing a job application to specific selection criteria.	11	39	<b>50</b>	14	40	<b>47</b>	19	<b>45</b>	35
Q4 I would feel confident in attending a job interview and would know how to "sell" myself.	14	36	<b>50</b>	19	<b>43</b>	38	13	35	<b>52</b>
Q5 I would be interested in learning about ways I may increase my chance of finding work in my field.	0	11	<b>89</b>	2	12	<b>86</b>	3	6	<b>90</b>
Q6 I know where to look for work in my field.	18	36	<b>46</b>	23	<b>47</b>	30	26	<b>55</b>	19
Q7 If I understood the skills employers were looking for my chances of finding employment would increase.	0	11	<b>89</b>	2	16	<b>81</b>	7	13	<b>80</b>
Q8 If Monash University Science Faculty offered a structured unit covering employability skills that could be credited towards my degree I would consider enrolling in it	29	32	<b>39</b>	30	23	<b>47</b>	35	10	<b>55</b>
Q9a communication.	0	14	<b>86</b>	2	26	<b>72</b>	3	29	<b>68</b>
Q9b team work.	0	4	<b>96</b>	2	26	<b>72</b>	3	23	<b>74</b>
Q9c problem solving.	0	18	<b>82</b>	0	7	<b>93</b>	0	6	<b>94</b>
Q9d using initiative	4	36	<b>61</b>	5	19	<b>77</b>	0	29	<b>71</b>
Q9e planning and organisation	11	18	<b>71</b>	7	30	<b>63</b>	3	35	<b>61</b>
Q9f self management	4	18	<b>79</b>	9	23	<b>67</b>	3	29	<b>68</b>
Q9g learning	0	7	<b>93</b>	0	12	<b>88</b>	0	10	<b>90</b>
Q9h use and development of technology	7	32	<b>61</b>	2	16	<b>81</b>	6	23	<b>71</b>

**Table 9. Responses to employability questionnaire by degree**

Questions	Single Degrees % Response			Double Degrees % Response		
	Disagree	Unsure	Agree	Disagree	Unsure	Agree
Q1 I feel I will have no problem gaining employment in my field.	24	<b>56</b>	20	13	<b>49</b>	38
Q2 I understand what employers are looking for in employees.	9	<b>52</b>	39	12	<b>45</b>	43
Q3 I would feel confident in preparing a job application to specific selection criteria.	22	<b>40</b>	38	17	40	<b>43</b>
Q4 I would feel confident in attending a job interview and would know how to "sell" myself.	21	38	<b>41</b>	20	31	<b>49</b>
Q5 I would be interested in learning about ways I may increase my chance of finding work in my field.	1	8	<b>92</b>	4	8	<b>88</b>
Q6 I know where to look for work in my field.	26	<b>52</b>	22	25	<b>49</b>	26
Q7 If I understood the skills employers were looking for my chances of finding employment would increase.	2	17	<b>81</b>	2	13	<b>85</b>
Q8 If Monash University Science Faculty offered a structured unit covering employability skills that could be credited towards my degree I would consider enrolling in it	14	24	<b>62</b>	33	14	<b>53</b>
Q9a communication.	2	27	<b>71</b>	5	16	<b>79</b>
Q9b team work.	1	14	<b>85</b>	2	8	<b>89</b>
Q9c problem solving.	3	16	<b>81</b>	2	15	<b>82</b>
Q9d using initiative	1	29	<b>70</b>	6	22	<b>72</b>
Q9e planning and organisation	4	30	<b>66</b>	2	19	<b>79</b>
Q9f self management	7	24	<b>69</b>	2	20	<b>78</b>
Q9g learning	0	12	<b>88</b>	0	5	<b>95</b>
Q9h use and development of technology	3	31	<b>65</b>	4	22	<b>74</b>

**Table 10. Responses to employability questionnaire by post-graduation intentions**

Questions	Employment % Response			Postgraduate Study % Response		
	Disagree	Unsure	Agree	Disagree	Unsure	Agree
Q1 I feel I will have no problem gaining employment in my field.	17	<b>42</b>	41	23	<b>61</b>	16
Q2 I understand what employers are looking for in employees.	6	<b>48</b>	46	12	<b>48</b>	40
Q3 I would feel confident in preparing a job application to specific selection criteria.	14	41	<b>44</b>	23	<b>38</b>	<b>38</b>
Q4 I would feel confident in attending a job interview and would know how to “sell” myself.	17	12	<b>41</b>	22	31	<b>47</b>
Q5 I would be interested in learning about ways I may increase my chance of finding work in my field.	2	6	<b>92</b>	2	11	<b>87</b>
Q6 I know where to look for work in my field.	20	<b>54</b>	26	26	<b>53</b>	21
Q7 If I understood the skills employers were looking for my chances of finding employment would increase.	1	9	<b>90</b>	3	26	<b>71</b>
Q8 If Monash University Science Faculty offered a structured unit covering employability skills that could be credited towards my degree I would consider enrolling in it	19	21	<b>60</b>	26	17	<b>57</b>
Q9a communication.	7	16	<b>78</b>	0	31	<b>69</b>
Q9b team work.	1	12	<b>87</b>	3	11	<b>86</b>
Q9c problem solving.	2	13	<b>84</b>	3	19	<b>78</b>
Q9d using initiative	3	20	<b>77</b>	3	27	<b>70</b>
Q9e planning and organisation	4	27	<b>69</b>	0	25	<b>75</b>
Q9f self management	4	20	<b>76</b>	4	27	<b>68</b>
Q9g learning	0	10	<b>90</b>	0	8	<b>92</b>
Q9h use and development of technology	4	26	<b>70</b>	2	24	<b>74</b>

**Table 11. Variation in agreement with skills statements.**

		<b>Skill statement with highest agreement</b> (percentage in brackets)	<b>Skill statement with least agreement</b> (percentage in brackets).
	Overall responses	Learning (90%)	Use and development of technology (68%)
Discipline	Biology	Team work (93%) Learning (93%)	Use and development of technology (62%)
	Biomedical	Team work (95%)	Use and development of technology (65%)
	Chemistry	Learning (85%)	Using initiative (59%)
	Earth Science	Team work (96%)	Use and development of technology (61%) Using initiative (61%)
	Maths	Problem solving (93%)	Planning and organisation (63%)
	Physics	Problem solving (94%)	Planning and organisation (61%)
Course Type	Single Degrees	Learning (88%)	Use and development of technology (65%)
	Double Degrees	Learning (95%)	Using initiative (72%)
Post-graduation intentions	Postgraduate study	Learning (92%)	Self management (68%)
	Employment	Learning (90%)	Planning and organisation (69%)