

Projects Related to Chemical, Natural and Healthcare Product Formulation Major

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Topic	Student level	Number of students	Required inputs	Projected Outputs	Time of project	Timing
Designing of novel hemp seed oil based formulations (for applications in beauty , household, agricultural chemical products)	2 nd year undergraduate	20-25 in Groups of 4-5	<ul style="list-style-type: none"> Hemp seed oil Information for students through lectures and/or personal feedback (optional) Technical input related to lab scale development 	Design concept and ideas with model/prototypes, medium quality	6 weeks	UC teaching semester Term 1, February-April
	3 rd year undergraduate	16, working individually		Fully designed product, including prototype, evaluation, high quality	12 weeks	UC teaching semester 2: September-November
1)Formulation and evaluation of blends of hemp seed oil with other carrier oils to improve stability and efficiency of skin care products 2) Evaluation of in vivo antioxidant activity and other performance claims of hemp based skin care formulations	Summer scholarship, final year undergraduate student	1 -2	<ul style="list-style-type: none"> Financial support i.e. through Callaghan or partial support for a UC summer scholarship Supervisory input Material and lab consumables 	Preliminary testing on specified detailed area of interest, quality of results is typically varied	10 weeks	December - January
	Masters student		<ul style="list-style-type: none"> Supervisory input Financial support Material and lab consumables 	Broader research approach, better, more reliable data and testing , typically of high quality	1 year	Typically February - November

Encapsulated hemp seed oil in formulations : formulation, evaluation of stability and performance	PhD	1	<ul style="list-style-type: none"> • Financial support, for example through Callaghan or the UC Connect scholarship • Material and lab consumables Supervisory input	Detailed research and findings, potentially novel findings/IP, broad range of topics covered with possibility to shape the project in detail, very high quality, first outputs expected after 1- 1.5 years	3-4 years	Any time but usually requires student recruitment
Formulation and evaluation of powdered hempseed oil products	Masters	1	<ul style="list-style-type: none"> • Financial support • Material supply • Supervisory input 	Detailed research and findings, potentially novel findings/IP, broad range of topics covered with possibility to shape the project in detail, high quality, first outputs expected after 6 months	1-1.5 years	Any time but usually requires student recruitment
Investigate the potential use of hemp in bio-herbicidal formulations	PhD	1	<ul style="list-style-type: none"> • Financial support, for example through Callaghan or the UC Connect scholarship • Material supply • Supervisory input 	Detailed research and findings, potentially novel findings/IP, broad range of topics covered with possibility to shape the	3-4 years	Any time but usually requires student recruitment

				project in detail , very high quality, first outputs expected after 1- 1.5 years		
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