

**UNDERGRADUATE THESIS**

**DEVELOPMENT OF CHITOSAN-BASED THIN FILM MEMBRANES  
CONTAINING CALCIUM PHOSPHATE, AND UREA FOR  
CONTROLLED NUTRIENT RELEASE IN SLOW-RELEASE  
FERTILIZER APPLICATIONS**

***PENGEMBANGAN MEMBRAN FILM TIPIS BERBASIS KITOSAN YANG  
MENGANDUNG KALSIUM FOSFAT, DAN UREA UNTUK PELEPASAN  
UNSUR HARA TERKONTROL DALAM APLIKASI PUPUK LEPAS  
LAMBAT***

Submitted to fulfill one of the requirements for obtaining a Bachelor of Science in  
Chemistry



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DEPARTMENT OF CHEMISTRY  
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**2025**

## RATIFICATION PAGE

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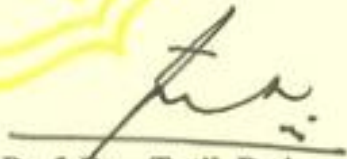
Has been defended upon the examination team on the 23<sup>rd</sup> of July, 2025



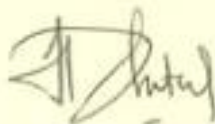
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Wakil Dekan Bidang Pendidikan, Pengajaran  
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