

LIST OF FIGURES

Figure 1. Carbon Composite Application in An Aircraft	11
Figure 2. Helicoidal Structure in a Crustacean Dactyl Club	13
Figure 3. Composite Matrix and Reinforcement	18
Figure 4. Helicoidal Structure and Applications	19
Figure 5. Universal Testing Machine	21
Figure 6. Stress-Strain Curve.....	23
Figure 7. Conceptual Model	25
Figure 8. Systematic Problem Solving	26
Figure 9. Parameter of Helicoidal Structure	29
Figure 10. Specimen Design.....	32
Figure 11. Tensile Test Setting on Specimen	34
Figure 12. Mesh Settings on Specimen	35
Figure 13. Simulation Response a.) Whole Specimen b.) Detailed Contour	37
Figure 14. Stress-strain Curve from Simulation	38
Figure 15. Comparison of Stress-Strain Curves	39
Figure 16. Normality Test Results.....	41
Figure 17. ANOVA Test Results.....	42
Figure 18. Main Effect Plot of UTS	45