INSTITUT TEKNOLOGI BANDUNG

AA 053778

Nomor: 130017/IT1.A/DA.07/VII/IJZ/1/2020

menyatakan bahwa

Ionatan Kevin Daniel lahir pada tanggal 10 Agustus 1998 di Tangerang diterima pada Tahun Akademik 2016/2017 dengan Nomor Induk Mahasiswa 13016025

telah menyelesaikan studi dan memenuhi segala syarat pendidikan kesarjanaan

pada Program Studi Teknik Kimia pada tanggal 30 Juni 2020.

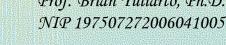
Oleh sebab itu, kepadanya diberikan gelar Sarjana Teknik (S.T.) dengan Predikat Cum Laude beserta segala hak dan kewajiban yang melekat pada gelar tersebut.

Diberikan di Bandung pada tanggal 18 Juli 2020.

Dekan Fakultas Teknologi Industri, Rektor,

Prof. Brian Yuliarto, Ph.D.

Prof. Reini Wirahadikusumah, Ph.D. NIP 196810251992032001





Institut Teknologi Bandung

Number: 130017/IT1.A/DA.07/VII/IJZ/1/2020

herewith certifies that

Jonatan Kevin Daniel

born in Tangerang on August 10, 1998

admitted in the Academic Year 2016/2017

with Student Registration Number 13016025

has successfully fulfilled all the requirements of the Undergraduate Program in

Chemical Engineering

on June 30, 2020

and therefore has been granted the degree of Bachelor of Science in Chemical Engineering (Cum Laude) with all the rights and responsibilities belonging to that degree.

Awarded in Bandung on July 18, 2020.

Dean of Faculty of Industrial Technology,

PEKTOR PANDUNG PEKTOR

Prof. Reini Wirahadikusumah, Ph.D. NIP 196810251992032001

Rector,

Prof. Brian Yuliarto, Ph.D. NIP 197507272006041005



INSTITUT TEKNOLOGI BANDUNG FAKULTAS TEKNOLOGI INDUSTRI

Jalan Ganesha 10 Bandung 40132 Telp. (022) 2504551 Fax. (022) 2509406

TRANSKRIP AKADEMIK

No: 130017/IT1.C07/DA.07/VII/TRS/2020

Nama : Jonatan Kevin Daniel

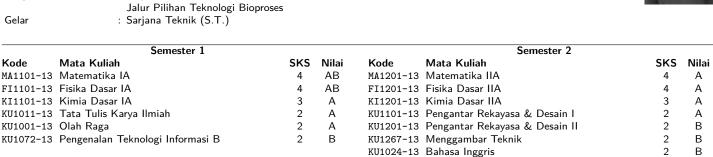
NIM : 13016025

Tempat, Tanggal Lahir: Tangerang, 10 Agustus 1998

Tahun Masuk ITB · 2016

Fakultas/Sekolah : Fakultas Teknologi Industri Program Studi : Sarjana Teknik Kimia

Semester 3



Kode	Mata Kuliah	SKS	Nilai	Kode	Mata Kuliah	SKS	Nilai
TK2101-13	Pengenalan Teknik Kimia	2	В	KU4078-19	Studium Generale	2	Α
TK2201-13	Neraca Massa dan Energi	3	AB	KI2051-13	Kimia Organik	3	BC
TK2103-13	Termodinamika Teknik Kimia	3	AB	TK2102-13	Metoda Pengukuran & Analisis	3	BC
TK2104-13	Analisis Matematika Teknik Kimia	2	AB	TK2202-13	Teknik Reaksi Kimia I	3	BC
TK2105-13	Statistika Teknik Kimia	2	В	TK2203-13	Operasi Perpindahan Kalor	3	Α
TK2106-13	Komputasi Teknik Kimia	3	В	TK2204-13	Mikrobiologi Industri	2	AB
TK2107-13	Mekanika Fluida dan Partikel	3	Α	TK2205-13	Biomolekul dalam Sistem Sel	3	AB
	Semester 5				Semester 6		

Kode	Mata Kuliah	SKS	Nilai	Kode	Mata Kuliah	SKS	Nilai
KU2062-13	Agama dan Etika Protestan	2	Α	KU2071-13	Pancasila dan Kewarganegaraan	2	Α
TK3001-13	Laboratorium Dasar Teknik Kimia	2	BC	TK3003-13	Laboratorium Teknologi Bioproses	2	AB
TK3101-13	Proses Pemisahan	3	В	TK3201-13	Peristiwa Perpindahan	3	В
TK3102-13	Sistem Utilitas	3	В	TK3202-13	Pengendalian Proses	3	В
TK3104-13	Dasar Dasar Teknologi Bioproses	3	Α	TK3206-13	Perancangan dan Analisis Bioreaktor	3	Α
TK3203-13	Pengendalian Lingkungan Industri Kimia	2	В	TK3207-13	Teknologi Enzim	2	AB
TK4007-13	Metabolisme Mikrobial	3	BC	TK4029-13	Proses Membran Industrial	3	Α

Semester /						Semester 8					
١	Kode	Mata Kuliah	SKS	Nilai	Kode	Mata Kuliah	SKS	Nilai			
-	TK4008-19	Proses Hilir Industri Bioproses	3	Α	KU4281-13	Kontroversi Isu Sosial	2	Α			
-	TK4026-13	Teknologi Pengolahan Partikulat	3	Α	MG4013-13	Biokorosi & Biodeteriorasi	2	Α			
-	TK4090-19	Kerja Praktek	2	Α	TK4009-19	Bioproses Industrial	3	AB			
-	TK4091-19	Proyek Interdisiplin untuk Teknik Kimia	2	Α	TK4093-19	Penelitian Teknik Kimia II	3	Α			
-	TK4092-13	Penelitian Teknik Kimia I	2	Α	TK4095-19	Perancangan Pabrik Bioproses	4	Α			
-	TK4101-19	Perancangan Proses	3	AB	TK4098-19	Ujian Komprehensif	1	AB			
-	TK4102-19	Evaluasi Kinerja Proses	2	AB	TK4201-19	Seminar Keprofesian Teknik Kimia	1	AB			
-	TK4103-19	Keselamatan Pabrik Proses	3	AB	TK4202-19	Ekonomi & Manajemen Proyek Teknik Kimia	3	Α			
7	TK4104-19	Perancangan Produk Kimia	2	Α							

A (4): Sangat baik, AB (3,5): Antara baik dan sangat baik, B (3): Baik, BC (2,5): Antara baik dan cukup, C (2): Cukup, D (1): Kurang atau hampir cukup.

Indeks Prestasi (IP) SKS : 30 Juni 2020 Predikat : Cum Laude Lulus tanggal

Judul Tugas Akhir : Pengolahan Air Limbah Industri Tekstil dengan Gabungan Bioreaktor Membran Anaerobik dan Proses Aerobik

Bandung, 18 Juli 2020 rof. Brian Yuliarto, Ph.D. NIP 197507272006041005

Semester 4



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ACADEMIC TRANSCRIPT

No: 130017/IT1.C07/DA.07/VII/TRS/2020

Name : Jonatan Kevin Daniel

Student ID Number : 13016025

Place, Date of Birth: Tangerang, August 10, 1998

Admission Year : 2016

Faculty/School : Faculty of Industrial Technology

Study Program : Undergraduate Program in Chemical Engineering

Option Bioprocess Technology

Degree : Bachelor of Science in Chemical Engineering



	Semester 1				Semester 2		
Code	Course	Units	Grade	Code	Course	Units	Grade
MA1101-13	Mathematics IA	4	AB	MA1201-13	Mathematics IIA	4	Α
FI1101-13	Elementary Physics IA	4	AB	FI1201-13	Elementary Physics IIA	4	Α
KI1101-13	General Chemistry IA	3	Α	KI1201-13	General Chemistry IIA	3	Α
KU1011-13	Indonesian Language: Scientific Writing	2	Α	KU1101-13	Introduction to Engineering and Design I	2	Α
KU1001-13	Sports	2	Α	KU1201-13	Introduction to Engineering and Design II	2	В
KU1072-13	Introduction to Information Technology B	2	В	KU1267-13	Engineering Drawing	2	В
				KU1024-13	English	2	В
	Semester 3						
Code	Course	Units	Grade	Code	Course	Units	Grade
TK2101-13	Introduction to Chemical Engineering	2	В	KU4078-19	Studium Generale	2	Α
TK2201-13	Mass and Energy Balances	3	AB	KI2051-13	Organic Chemistry	3	BC
TK2103-13	Chemical Engineering Thermodynamics	3	AB	TK2102-13	Analytical & Measurement Methods	3	BC
TK2104-13	Chemical Engineering Mathematical Analysis	2	AB	TK2202-13	Chemical Reaction Engineering I	3	BC
TK2105-13	Chemical Engineering Statistics	2	В	TK2203-13	Heat Transfer Operations	3	Α
TK2106-13	Chemical Engineering Computation	3	В	TK2204-13	Industrial Microbiology	2	AB
TK2107-13	Fluid and Particle Mechanics	3	Α	TK2205-13	Biomolecules in Cellular Systems	3	AB
	Semester 5				Semester 6		
Code	Course	Units	Grade	Code	Course	Units	Grade
KU2062-13	Protestant: Religion and Ethics	2	Α	KU2071-13	Pancasila and Civic Education	2	Α
TK3001-13	Chemical Engineering Flementary Laboratory	2	BC	TK3003-13	Bioprocess Technology Laboratory	2	AB

Code	Course	Units	Grade	Code	Course	Units	Grade
KU2062-13	Protestant: Religion and Ethics	2	Α	KU2071-13	Pancasila and Civic Education	2	Α
TK3001-13	Chemical Engineering Elementary Laboratory	2	BC	TK3003-13	Bioprocess Technology Laboratory	2	AB
TK3101-13	Separation Processes	3	В	TK3201-13	Transport Phenomena	3	В
TK3102-13	Plant Utility Systems	3	В	TK3202-13	Process Control	3	В
TK3104-13	Fundamentals of Bioprocess Technology	3	Α	TK3206-13	Bioreactor Design & Analysis	3	Α
TK3203-13	Environmental Management in Chemical	2	В	TK3207-13	Enzyme Technology	2	AB
	Industry			TK4029-13	Industrial Membrane Processes	3	Α
TK4007-13	Microbial Metabolism	3	BC				

TK4007-13	Microbial Metabolism	3	BC					
	Semester 7			Semester 8				
Code	Course	Units	Grade	Code	Course	Units	Grade	
TK4008-19	Downstream Processing in Bioprocess	3	Α	KU4281-13	Controversy of Social Issues	2	Α	
	Industries			MG4013-13	Biocorrosion & Biodeterioration	2	Α	
TK4026-13	Particulate Processing Technology	3	Α	TK4009-19	Industrial Bioprocesses	3	AB	
TK4090-19	Industrial Internship	2	Α	TK4093-19	Chemical Engineering Research II	3	Α	
TK4091-19	Interdisciplinary Project for Chemical	2	Α	TK4095-19	Bioprocess Plant Design	4	Α	
	Engineering			TK4098-19	Comprehensive Examination	1	AB	
TK4092-13	Chemical Engineering Research I	2	Α	TK4201-19	Chemical Engineering Professional Seminar	1	AB	
TK4101-19	Process Design	3	AB	TK4202-19	Chemical Engineering Economics & Project	3	Α	
TK4102-19	Process Performance Evaluation	2	AB		Management			
TK4103-19	Process Plant Safety	3	AB					
TK4104-19	Chemical Product Design	2	Α					

A (4): Exceptional, AB (3.5): Excellent, B (3): Good, BC (2.5): Satisfactory, C (2): Sufficient, D (1): Poor.

Grade Point Average : 3.54 Units : 150
Completion Date : June 30, 2020 Judicium : Cum Laude

Final Project Title : Textile Industry Wastewater Treatment with a Combination of Anaerobic Membrane Bioreactor and Aerobic Process

