

## **May 2019 Graduate Future Plans Survey College of Engineering Summary Report**

This report presents summary results from the May 2019 Graduate Future Plans Survey for departments and types of degree programs in the College of Engineering, followed by summary information on employment and further education for the college as a whole.

### **Highlights for the College of Engineering**

- 68% of the doctoral and master's students in COE graduating in spring 2019 responded to the survey
- 84% of doctoral respondents and 64% of master's respondents in COE report that they have secured full-time employment for the coming year
- COE graduates with full-time employment report an average salary in the coming year of \$99,215 (median = \$102,500)
- 32% of COE graduates with full-time employment will be working in North Carolina (25% in the Research Triangle Area)
- 9% of master's students in COE report that they plan to return to graduate/professional school in the coming year, with the vast majority of those with definite plans for graduate/professional school attending a school in North Carolina

## Department Summaries

The following tables provide summary statistics for May 2019 graduates in the College of Engineering. Table 1 includes the number of graduate students in the College of Engineering who graduated in May 2019 and the number of those students who submitted the Graduate Future Plans Survey. It also includes the number of students who indicated at the time of the survey that they would be working full-time, as well as the number of those who indicated they were either pursuing or planning to pursue another graduate or professional degree in the coming year. Finally, it includes summary statistics on the self-reported salaries of those who reported that they would be employed full-time. Table 2 and Table 3 provide the same summary statistics for May 2019 graduates in each department in the College of Engineering, for doctoral graduates and master's graduates, respectively.

**Table 1: College Summary**

College	Survey Population	Survey Respondents	Response Rate	N Full Time Job	N Grad/Prof School*	25th Percentile Salary	Median Salary	75th Percentile Salary	Average Salary	N Reporting Salary
COE Overall	574	388	68%	259	32	77,500	102,500	112,500	99,215	239

**Table 2: Department Summaries, Doctoral Degree Recipients**

Department	Survey Population	Survey Respondents	Response Rate	N Full Time Job	N Grad/Prof School*	25th Percentile Salary	Median Salary	75th Percentile Salary	Average Salary	N Reporting Salary
Biomedical Engineering	2	2	100%	2	.	**	**	**	**	1
Chemical Engineering	5	3	60%	1	.	**	**	**	**	1
Civil, Construction, and Environmental Engineering	6	6	100%	5	.	57,500	77,500	82,500	84,000	5
Computer Science	12	8	67%	7	.	77,500	92,500	150,000	101,786	7
Electrical and Computer Engineering	13	10	77%	10	.	97,500	117,500	142,500	114,500	10
Fitts Dept of Industrial and Systems Engineering	7	5	71%	4	.	87,500	95,000	107,500	97,500	4
Materials Science and Engineering	5	4	80%	2	.	**	**	**	**	2
Mechanical and Aerospace Engineering	12	6	50%	5	.	107,500	112,500	112,500	101,500	5
Nuclear Engineering	9	5	56%	5	.	62,500	77,500	87,500	74,500	5
COE Doctoral Degree Recipients Overall	71	49	69%	41	.	77,500	92,500	120,000	97,375	40

\*Includes all students planning on going to graduate/professional school in the coming year for another degree, including those who were currently enrolled as of the time of the survey or who have been accepted to graduate/professional school and know where they will be going, as well as those who have been accepted to at least one school but have not yet finalized their plans, those who have applied but have not yet been accepted, and those who have not yet applied but plan to do so.

\*\*Statistics on salary information for those departments with fewer than 4 respondents reporting their salary have been excluded from the table.

**Table 3: Department Summaries, Master's Degree Recipients**

Department	Survey Population	Survey Respondents	Response Rate	N Full Time Job	N Grad/Prof School*	25th Percentile Salary	Median Salary	75th Percentile Salary	Average Salary	N Reporting Salary
College of Engineering Dean's Office	14	8	57%	7	1	72,500	80,000	102,500	88,333	6
Chemical Engineering	18	11	61%	7	1	72,500	85,000	97,500	85,000	6
Civil, Construction, and Environmental Engineering	26	20	77%	14	3	67,500	82,500	100,000	84,583	12
Computer Science	140	102	73%	77	8	102,500	107,500	122,500	111,866	71
Electrical and Computer Engineering	175	112	64%	76	5	97,500	105,000	107,500	102,426	68
Fitts Dept of Industrial and Systems Engineering	48	34	71%	15	5	72,500	77,500	87,500	82,143	14
Materials Science and Engineering	16	11	69%	6	5	62,500	87,500	107,500	84,167	6
Mechanical and Aerospace Engineering	58	36	62%	13	4	72,500	77,500	82,500	77,500	13
Nuclear Engineering	7	4	57%	3	.	**	**	**	**	3
Operations Research	1	1	100%	.	.	**	**	**	**	.
COE Master's Degree Recipients Overall	503	339	67%	218	32	82,500	102,500	112,500	99,585	199

\*Includes all students planning on going to graduate/professional school in the coming year for another degree, including those who were currently enrolled as of the time of the survey or who have been accepted to graduate/professional school and know where they will be going, as well as those who have been accepted to at least one school but have not yet finalized their plans, those who have applied but have not yet been accepted, and those who have not yet applied but plan to do so.

\*\*Statistics on salary information for those departments with fewer than 4 respondents reporting their salary have been excluded from the table.

## Full-Time Employment (college overall)

**Table 4: Name of Company/Organization, Doctoral Degree Recipients**

	N
3C Institute	1
Analog Devices Inc	1
Anokiwave	1
Apple	1
CTS Corporation	1
Century College	1
Citrine Informatics	1
Cornell University	1
Emory Healthcare	1
Facebook	2
Florida Tech	1
GE	1
Hunan University	1
Institute for Medical Research	1
Intel	1
Johns Hopkins Applied Physics Laboratory	1
LORD Corporation	1
Lenovo	1
Lumeova, Inc.	1
MathWorks	1
Mediatek USA	1
Microchip Technology	1

**Table 4: Name of Company/Organization, Doctoral Degree Recipients, *continued***

	N
Microsoft	1
Mott MacDonald	1
NC State University	6
Northrop Grumman	1
Oak Ridge National Laboratory	2
Oregon State University	1
Research Square	1
SAS	1
US Military Academy	1
Walmart Labs	1
Yale University	1

**Table 5: Name of Company/Organization, Master's Degree Recipients**

	N
AECOM	1
AFL	1
AMD	2
ARM	1
Alpek Polyester	1
Altec Industries Inc	1
AmWins Group Benefits	1
Amazon	20
Amazon Services Inc.	1
Amazon Web Services	2
American Tower Corporation	1
Analog Devices Inc	1
Appfolio	1
Apple	4
Arrcus, Inc.	1
Aruba Networks	1
AveXis	2
Avi Networks	1
Barclays	1
Bell and Howell	1
Big Switch Networks	1
Black & Veatch	1
Blackbaud	1
Booz Allen Hamilton	1

**Table 5: Name of Company/Organization, Master's Degree Recipients, *continued***

	N
Cadence Design Systems	1
Celgard LLC	1
Ciena	1
Cisco	4
Citrix	2
Cloud Genix	1
Collins Aerospace	1
Cruise Automation	1
DB Global	1
Deloitte	2
Delta Five	1
Duke Health Performance Services	1
ECS Southeast	1
Eaton	1
Enventys Partners	1
Evonik	1
Expedia	2
Facebook	4
GE	3
General Atomics Aeronautical	1
General Dynamics	1
Gilead Sciences	1
Global Nuclear Fuel	1
Goldman Sachs	1
Google	5

**Table 5: Name of Company/Organization, Master's Degree Recipients, *continued***

	N
HPE	1
Hazen and Sawyer	1
Highland Industries	1
Hubbell Inc	1
Hughes Network Systems	2
IBM	1
Infrastructure Consulting and Engineering	1
Intel	4
International Paper	1
Itron	1
JUUL Labs	1
KBI Biopharma	1
KBR	1
Kelloggs	1
Kiewit Engineering	1
Kleinschmidt Associates	1
LA Gauge Company	1
LLamasoft	2
Leidos	1
Lenovo	1
LexisNexis	1
Lockheed Martin	1
Marvell Semiconductors	2
Marvell Technologies	1
MathWorks	3

**Table 5: Name of Company/Organization, Master's Degree Recipients, *continued***

	N
McCormick & Co.	1
Merieux NutriSciences	1
Micro-Epsilon	1
Microsoft	10
N/A	1
NAVAIR	2
NC State University	1
NetApp	3
Netapp	1
Neutron Holdings, Inc.	1
Northrop Grumman	2
Nutanix	3
Oracle	1
Parsons	1
Polydyne	1
Pramana,LLC	1
Qualcomm	12
Quantworks	1
RTI International	1
Red Hat	2
RoviSys	2
Rubberlite, Inc.	1
SAS	1
Saint-Gobain	1
Samsung Semiconductors	1

**Table 5: Name of Company/Organization, Master's Degree Recipients, *continued***

	N
Saudi Aramco	1
Schweitzer Engineering Limited	1
Sensus (Xylem)	1
Seqirus	1
Shipt	1
Stantec	1
Staples Inc.	1
Sun Nuclear Corporation	1
The Drones Racing League	1
The MathWorks	1
Twilio	1
UNC Chapel Hill	1
UNC Physicians Network	1
US Air Force	1
US Coast Guard	1
US Military Academy	1
US Navy	1
USMA	1
Uber	2
Ulliman Schutte	1
Vaughn & Melton Consulting Engineers	1
Visa	2
WSP	2
Wayfair	1
Wireless Research Center of North Carolina	1

**Table 5: Name of Company/Organization, Master's Degree Recipients, *continued***

	N
WithersRavenel	1
Xilinx	2
Yelp	1
innoGrit	1

**Table 6: Location of Company (state), Doctoral Degree Recipients**

	N	%
North Carolina	16	41%
California	4	10%
Oregon	3	8%
Massachusetts	2	5%
New York	2	5%
Tennessee	2	5%
Arizona	1	3%
Arkansas	1	3%
Connecticut	1	3%
Florida	1	3%
Georgia	1	3%
Illinois	1	3%
Maryland	1	3%
Minnesota	1	3%
Washington	1	3%
Wisconsin	1	3%

**Table 7: Location of Company (state), Master's Degree Recipients**

	N	%
Alabama	4	2%
Arizona	2	1%
California	53	25%
District of Columbia	1	>1%
Florida	4	2%
Georgia	4	2%
Illinois	3	1%
Indiana	1	>1%
Kentucky	1	>1%
Maryland	4	2%
Massachusetts	9	4%
Michigan	2	1%
New Hampshire	1	>1%
New Jersey	2	1%
New York	5	2%
North Carolina	65	30%
Ohio	1	>1%
Oregon	2	1%
Pennsylvania	1	>1%
South Carolina	5	2%
Tennessee	2	1%
Texas	9	4%
Virginia	6	3%
Washington	22	10%

**Table 7: Location of Company (state), Master's Degree Recipients, *continued***

	N	%
West Virginia	1	>1%
Not applicable - other	1	>1%
Not sure	3	1%

**Table 8: Region of Company (inside/outside NC Triangle), Doctoral Degree Recipients**

	N	%
Triangle	14	35%
Other NC	1	3%
Outside NC	25	63%

**Table 9: Region of Company (inside/outside NC Triangle), Master's Degree Recipients**

	N	%
Triangle	48	23%
Other NC	16	8%
Outside NC	147	70%

**Table 10: Job Title, Doctoral Degree Recipients**

	N
Academic Editor	1
Assistant Professor	2
Data Scientist	2
Device Design Engineer	1
Engineering Faculty	1
GPU Performance Modeling Engineer	1
IC Design Engineer	1
Lieutenant Colonel / Assistant Professor	1
Management Engineer III	1
Operations Research Specialist	1
Postdoc	3
Postdoctoral Associate	1
Postdoctoral Research Associate	1
Postdoctoral Research Scholar	4
Postdoctoral Researcher	3
Principal Engineer	1
Product Applications Engineer	1
R&D Staff	1
Research Scientist	2
Scientist	1
Senior Data Scientist	1
Senior Game Developer	1
Senior RF IC Design Engineer	1
Single Crystal Engineer	1

**Table 10: Job Title, Doctoral Degree Recipients, *continued***

	N
Software Engineer	1
Staff Engineer	1
Staff Engineer, Mechanical Research	1
Staff Researcher	1
TD Module and Integration Yield Eng.	1
Threat Analyst	1
Traffic Engineer	1

**Table 11: Job Title, Master's Degree Recipients**

	N
ASIC Design Verification	1
ASIC Verification Engineer	1
Analyst	1
Android Developer	1
Antenna Engineer	1
Architecture Engineer	1
Assistant Engineer	1
Assistant Professor	1
Associate Integration and Automation Engineer	1
Associate Software Engineer	1
Automation Engineer	1
Automation and Test Developer	1
Big Data Engineer	1
BioProcess Engineer	1

**Table 11: Job Title, Master's Degree Recipients, *continued***

	N
Business System Analyst- Global Supply Chain	1
Business Technology Analyst	1
CG Engineer	1
CPU Microarchitect and Design Engineer	1
Civil/Structural Engineer	1
Cloud Support Associate	1
Compiler Engineer	1
Compiler Test Engineer	1
Component Design Engineer	1
Data Engineer	1
Data Scientist	3
Design Engineer	1
Design Trainee	1
Design Verification Engineer	4
Digital Design Engineer	1
Distribution Planning & Analysis Engineer	1
Downstream Process Development Associate	1
Electrical Engineer	4
Embedded Coder Software Engineer	1
Embedded Software Engineer	1
Engineer	4
Engineer Developing Group	1
Engineer I	1
Engineer II	1

**Table 11: Job Title, Master's Degree Recipients, *continued***

	N
Engineer, Modem System Test	1
Engineering Resident	1
Functional Verification Engineer	1
GPU DV Engineer	1
Geotechnical Engineer	1
Graduate Design Engineer	1
Graphics Hardware Engineer	2
HVAC/Retrocommissioning Engineer	1
Hardware Engineer	2
IT System Analyst	1
Industrial and Systems Engineer	1
Instructor of Mathematics	1
Intelligence Specialist	1
MES Engineer	1
MTS	1
MTS 2 Hardware Engineer (RF Design)	1
MTS Developer	1
Management Engineer I	1
Manufacturing Engineer	1
Materials Engineer	1
Mechanical Engineer	2
Medical Scribe / Nurse	1
Member Technical Staff	1
Member of Technical Staff	4
Mission Assurance Engineer II	1

**Table 11: Job Title, Master's Degree Recipients, *continued***

	N
Modem Systems Test Engineer	1
Navy Propeller Component Improvement Program Manager	1
Network Engineer	2
New Grad Software Engineer	1
Nuclear Monitoring Data Analyst	1
OS Software Engineer	1
Performance Analyst	1
Performance Development Engineer	1
Performance Engineer	1
Physical Design Engineer	2
Principal Engineer	1
Process Development Engineer	1
Process Engineer	1
Product Engineer	1
Production Engineer	1
Project Manager	1
Prototype Instructor	1
QC Analyst	1
Research Assistant	1
Research Microbiologist	1
Research Specialist	1
SDE	1
SOC Design Verification Engineer	1
Senior ASIC Design Engineer	1

**Table 11: Job Title, Master's Degree Recipients, *continued***

	N
Senior Compiler Engineer	1
Senior Engineer	1
Senior Manufacturing Technician	1
Senior Mechanical Engineer	2
Senior Product Development Engineer	1
Senior Robotics Engineer	1
Senior Sales and Applications Engineer	1
Senior Software Developer	1
Senior Software Engineer	4
Serdes Verification Engineer	1
Silicon Design Engineer	5
Silicon Engineer	1
Silicon Verification Engineer	1
Site Reliability Engineer	1
SoC Design Engineer	1
SoC Digital Design Engineer	1
Software Architect-Machine Learning	1
Software Developer	1
Software Developer Engineer	3
Software Developer II	1
Software Development Engineer	16
Software Development Engineer I	2
Software Engineer	26
Software Engineer II	2
Software Engineering Manager	1

**Table 11: Job Title, Master's Degree Recipients, continued**

	N
Solution Analyst - SCM Advanced Analytics	1
Specialty Polymers Engineer	1
Staff Professional II	1
Structural Certification Engineer	1
Structural Design Engineer	2
Structural Engineer	3
Structural Engineer III	1
Structural Engineering	1
Substation Design Engineer	1
Supplier Quality Engineer	1
Supply Chain Consultant	1
Supply Chain Design Consultant	2
Supply Chain Rotational Program	1
System Design Engineer	1
System Software Engineer	1
Systems Engineer	3
Systems Reliability Engineer	1
Technical Service Representative	1
Technical Support Engineer	1
Technology Analyst	1
Test Development Engineer	1
Transportation Engineer in Training	1

**Table 12: Resources Used to Help Get/Locate Job, by Degree Received\***

	COE Overall		Doctoral		Master's	
	N	%	N	%	N	%
Internet: LinkedIn	112	50%	9	25%	103	55%
Internship/externship	77	35%	10	28%	67	36%
Career fair at NC State	65	29%	1	3%	64	34%
Family/friends/classmates/co-workers	47	21%	9	25%	38	20%
Campus or college career center	41	18%	2	6%	39	21%
Co-op experience	40	18%	4	11%	36	19%
Personal/professional connection(s) within the company	39	18%	9	25%	30	16%
NC State faculty member	38	17%	19	53%	19	10%
Internet (Other)	32	14%	2	6%	30	16%
On-campus interviewing	29	13%	2	6%	27	15%
Optional Practical Training (OPT)	28	13%	4	11%	24	13%
Applied for job via ePACK	27	12%	1	3%	26	14%
Consultation w/ NCSU Career Counselor/Coach	18	8%	0	0%	18	10%
Professional association (members, conferences, publications, etc.)	16	7%	7	19%	9	5%
Employer info session on campus	14	6%	1	3%	13	7%
Student teaching experience	11	5%	4	11%	7	4%
Employer found resume on ePACK	7	3%	1	3%	6	3%
Volunteer work	6	3%	0	0%	6	3%
Career fair off campus	5	2%	0	0%	5	3%
Staffing agency	2	1%	0	0%	2	1%
Clinical placement	0	0%	0	0%	0	0%
Other	10	5%	1	3%	9	5%

\*Respondents could select more than one resource.

\*\*Question was asked of those who indicated they would be employed full-time in a position they had obtained during their graduate program or at the time of graduation (i.e., excluding those who said they would be employed in a position they had obtained prior to beginning their graduate program).

## Further Education (college overall)

**Table 13: Status for Further Graduate/Professional School Attendance, Master's Degree Recipients (among those planning to attend)**

	N	%
Am already enrolled and pursuing the degree	20	63%
Have been accepted and know where I'm going	6	19%
Have been accepted but undecided	.	0%
Have applied, but not yet been accepted	1	3%
Have not applied but plan to do so within the next year	5	16%

Information provided in the tables below is collected and reported only for respondents who indicated that at the time of the survey they had been accepted to graduate/professional school to pursue another degree and were currently enrolled or knew where they would be going.

**Table 14: Name of Graduate/Professional School Students Will be Attending, Master's Degree Recipients**

	N
China University of Petroleum	1
George Washington University	1
Mississippi State University	1
NC State University	21

**Table 15: Location of Graduate/Professional School Students Will be Attending, Master's Degree Recipients**

	N	%
North Carolina	21	84%
California	1	4%
District of Columbia	1	4%
Mississippi	1	4%
Outside United States	1	4%

**Table 16: Type of Degree Pursuing, Master's Degree Recipients\***

	N	%
Master's	2	8%
Doctoral	23	88%
Professional	0	0%
Other	1	4%

\*Respondents could select more than one degree.

**Table 17: Master's Degree Pursuing, Master's Degree Recipients**

	N
MS	2

**Table 18: Doctoral Degree Pursuing, Master's Degree Recipients**

	N
PhD	23

**Table 19: Other Degree Pursuing, Master's Degree Recipients**

	N
NDS	1

**Table 20: Academic Program, Master's Recipients\***

	N
CSC	1
Chemical and Biomolecular Engineering	1
Computer Engineering	1
Computer Science	4
Cs	1
ECE	1
Electrical Engineering	1
Engineering	1
ISE	1
Institute for Advanced Analytics	1
ME	1
Material Science and Engineering	1
Materials Science and Engineering	1
Mechanical engineering	1
Non Degree Seeking	1
Ph.D	1
PhD @ MSE (Continuing the existing track)	1
PhD Industrial Engineering	1
PhD Operations Research	1
PhD, Computer Science	1
PhD/Electrical Engineering	1
Phd	1
csc	1

\*Academic program has not been cleaned. Responses are verbatim.

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