



The Integrated Business and Engineering Honors Program IBE Fact Sheet

IBE Mission

Dating back a little less than a decade ago, the faculty at The Ohio State University saw an opportunity: a chance to make one of the first interdisciplinary programs in the country. But, what does an interdisciplinary program mean, and what value does it provide?

Broadly, the value the faculty saw can only be described by one of the most ground-breaking companies in the world: Apple. They sought to equip students with the skills to *innovate and problem solve* like Steve Wozniak on the engineering side, as well as *innovate and problem solve* like Steve Jobs on the business side. In essence, they wanted to foster a program that could combine and teach the skillsets of two generational leaders, thus growing students into eventual job candidates that would not only create a product that changes the world, but also communicate its value to make its potential groundbreaking impact.

So just how do we do this?

The Three Pillars

In IBE, the way in which we foster this amount of value is through three pillars: the academics we teach, the mindset we create, and the community we foster.

Academics

IBE is a selective honors program, consisting of 36 honors students. Our students major in either business or engineering, complete an adjusted minor in the other, and receive an IBE distinction on their diploma following the completion of the program.

The major is a full degree; for example, a mechanical engineer in IBE leaves Ohio State with the same major as a mechanical engineer not in IBE. The difference comes with the adjusted minor and the IBE curriculum. For engineering students, the business minor is adjusted to incorporate the major versions of the typical minor classes. For business majors, the engineering minor consists of slightly different classes, due to the IBE-specific classes. On the website, under the “Academics” tab, you can find requirements broken down by business or engineering.

Below is a graphic illustrating the six courses each cohort must take and the sequence in which our students take them.



The Integrated Business and Engineering Honors Program IBE Fact Sheet

 First Year Engineering	 Corporate Strategy Seminar	 Innovation Strategy Seminar	 IBE Capstone
 IBE Freshman Capstone	No IBE Core Class	No IBE Core Class	 IBE Capstone cont.

On the website, under the “Academics” and “IBE Curriculum” tab, we have a short description of each class. Some important notes not listed on the website include:

First Year Engineering Course (Fundamentals or Engineering Honors):

- Every honors engineering student must take this class
- The 36-student freshman IBE cohort takes this class together, providing the first real chance to get to know each other and begin to build relationships
- The class consists of:
 - o learning how to problem solve in Excel, MATLAB, C/C++
 - o learning technical writing through writing lab reports
 - Each lab provides a glimpse into each engineering specialization, allowing students who are unsure of their major choice to experience each
 - o learning to work in teams. Much of the work done in this class (and in IBE in general) is done in groups, which helps each student discover their leadership style
- This class, for the IBE section, is taught by the head of the Honors Engineering Department, and has one graduate teaching assistant (GTA) and four undergraduate teaching assistants (UTA)
- Coding experience is not a requirement, but it does make the class and the workload easier to manage

IBE Freshman Capstone:

- Most honors engineering majors will take the robot section of the FEH 2, while the IBE cohort will take the IBE-specific FEH 2



The Integrated Business and Engineering Honors Program

IBE Fact Sheet

- This class centers around taking a broad task, for example: “building a product that helps people with arthritis”. Then, students in groups 4-5 must go through the product design process
 - This process includes an iterative combination of interviewing end users, brainstorming ideas, mocking up ideas into a minimum viable product (MVP), going back to end users for proof-of-concept, product construction, forming a business model to bring the product to market, and presenting to industry experts
- Skills this class builds include:
 - how to deal with ambiguous problems
 - how to work in teams/leadership styles
 - presentation skills and public speaking
 - learning the “Design Thinking” process
 - how to graphically design ideas using CAD software like SolidWorks

Corporate and Innovation Strategy Seminars:

- MBA-level classes only available to IBE undergraduate students
- Taught in a seminar style, meaning students learn mostly through large discussions and by working on real-life cases in groups
- Students will come to understand how businesses make the decisions they do, how to go about making business decisions in the future, and how these decisions lead to businesses gaining a competitive advantage
- Gives students a taste of what management jobs will be like, how to be a manager, what it’s like to work for one, and what they look for in a job candidate

Senior Year Capstone:

- In a culmination of everything students have learned in the IBE classes, and their regular business and engineer coursework, the senior IBE cohort gets a chance to put everything professors have preached in practice
- BE students are sponsored by real companies like P&G and L Brands, where the management will provide a very broad directive to groups of 4-6
 - Like the freshman year project, this directive will be centered around building a product, but this time, the company provides the funding, resources, equipment, and guidance to complete the product design process
 - In the past, these companies have taken our teams products and brought them to market, where some have been very successful

Community

To give a brief breakdown of the people in the program, we come from all over the world! This means three different continents and nearly 20 states. At school, our program consists of 26 different majors; keep in mind that between Fisher and COE, there are 28 different



The Integrated Business and Engineering Honors Program IBE Fact Sheet

specializations. We have had students double major and pursue paths like Medicine and Law as well. Lastly, our program is about two-thirds engineering majors, one-third business majors, due to the larger number of honors engineering majors at Ohio State.

Another huge facet of how we in IBE add value to our cohorts is by placing already impressive students into a larger group of other impressive students. This allows each student to be challenged to improve by others as well as improved by assistance from others. We truly look to form a friendly but competitive atmosphere to build students into the best they can be. This is also illustrated through our mentorship program, where we pair upperclassmen with freshman to help make the transition to college a little bit easier.

Outside the classroom, the friendly half of the culture shines through. The IBE Executive Board puts on many events across the year to foster stronger bonds across cohorts. This includes an annual retreat, social events, alumni dinners, and an annual end of the year banquet.

But we don't stop there. IBE students are notorious around campus for taking that IBE community to the rest of OSU, being actively involved in countless student organizations. So, whether be in the "Best Damn Band in the Land," in Buckeyethon, other organizations in Fisher, Engineering, or completely outside our normal academic realm, IBE students are not only involved, but leading these organizations. While each of our students do challenge themselves in the classroom, they still have time to explore their interests, and trust us, they do!

We'd be lying if we said those interests stopped at the campus' edge. Our students have taken the opportunity to travel abroad, take a co-op or internship, and the first cohort of IBE even got to go to CERN in Switzerland to work with the innovation lab there for two weeks!

One thing to note is, if an IBE student wishes to take a co-op/spring internship, or study abroad, it must be during the two semesters, spring of sophomore and junior year, where IBE has no specific coursework. We require that you take each class with your cohort. But, as history tells us, this has not been a problem for our students.

Mindset

Now through this diversity in people and coursework, we develop a different style of learning, thinking, and problem-solving. In highlighting our main qualities, we expect our students to excel in the classroom, but we also want them to be just as driven outside of the classroom. You get out what you put in in college; the most motivated students have the most success in clubs, class, and finding internships and jobs.

Take the Info Sessions the Recruitment Team has run now for the last three semesters: they are three students who as freshmen took the initiative to create a better recruiting model and all three



The Integrated Business and Engineering Honors Program IBE Fact Sheet

of them now can use what they learned in classes, internships, and eventual jobs, including on their resumes, which certainly didn't hurt. This another great thing about getting involved in IBE: we don't care which year you are. If you have a good idea, we want to hear it.

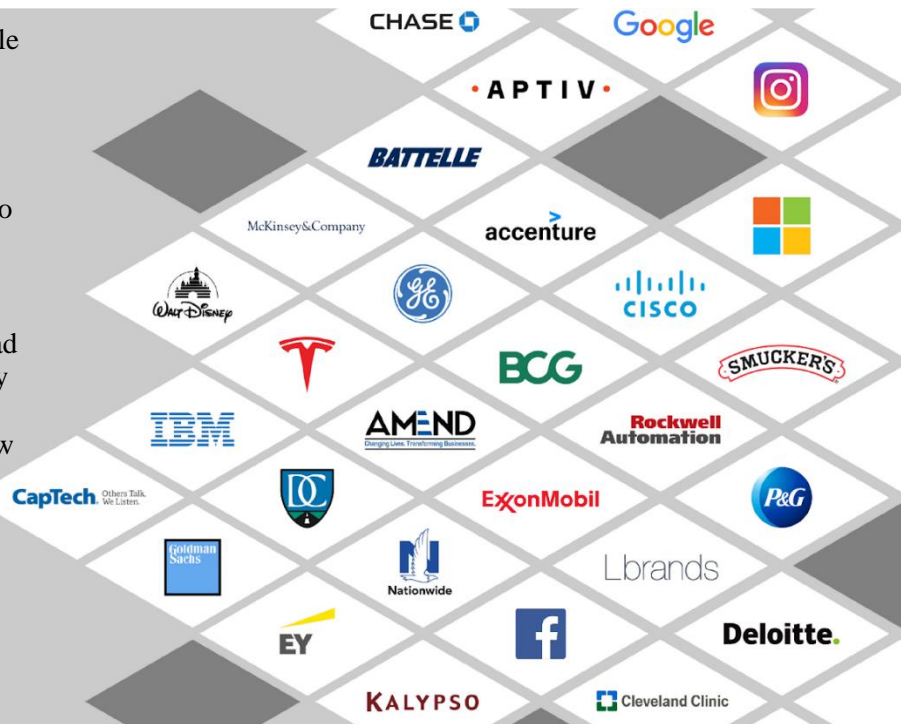
While we set ourselves apart by the way we attack problems, looking at them from the engineering and business lenses, we also do so by how we communicate our thoughts with others. No matter how great of an idea you have, if you can't communicate it effectively, then people cannot understand its brilliance. In IBE, much of our coursework is done in groups. This truly helps you build a leadership style, figure out how to work well with others, and be an effective communicator.

Finally, through all of this, we are all individuals with unique backgrounds and experiences. This allows us to be different from the rest of campus, but also different from the other members in IBE. This diversity enables us all to pull from our individual experiences and add value to the teams we find ourselves a part of.

The Proof is in the Pudding

So...we've been talking about all the value we here in IBE create and provide to our students. But what proof do we have that it matters? Well, in short, we have plenty!

This assortment of incredible companies is just a few of the many companies our students have worked and interned for. We like to highlight these companies to illustrate the vast array of industries and jobs our students find themselves in. On top of these, we have had students go to get secondary degrees too. For example, we've had students get a law degree at Harvard Law School, and PhDs at Stanford and Cal Berkley. This just demonstrates that with IBE, our students can pursue any career and that IBE helped them get there.





The Integrated Business and Engineering Honors Program IBE Fact Sheet

But the proof doesn't stop there! Not only do our students find themselves in careers of interest, but ones that are fruitful as well. Coming out of IBE, our students' average starting salary is \$85,000/year. To couple with this, our program has a 100% placement rate directly out of school. Every single one of our graduates has had a job directly of school, before they walked across the stage at graduation.

An incredible aspect of having alumni with these great jobs is that they are all very willing to talk to our current students, share their experiences, and help others in IBE get those same opportunities.

Overall, the Honors Integrated Business and Engineering Program allows its students to challenge themselves in and out of the classroom, on and off campus, and through this program, enjoy their college experience and find a great job that above all else, is rewarding and fulfilling.