



The ENGINEERING CAREER COACH PODCAST SESSION #18

How to Change Your Engineering Career Path from One Discipline to Another

Show notes at: engineeringcareercoach.com/changingover

Anthony's Upfront Intro: You are listening to *The Engineering Career Coach Podcast* with Anthony Fasano session #18. In this session I will help a young engineer create a plan to change his engineering career path from one engineering discipline to another. Lets do it!

Episode Intro: Welcome to *The Engineering Career Coach Podcast*, where it's all about helping real engineers to overcome real challenges and get real results. And now for your host, who is on a mission to inspire as many engineers as possible, professional engineer and certified career coach, Anthony Fasano.

Hello everyone, this is Anthony Fasano. I welcome you *The Engineering Career Coach Podcast*. As a thank you for listening you can visit engineeringcareercoach.com/freegift, put in your name and email address and I will send you in three separate emails, detailed emails the three key tools that I used to become a partner in an engineering firm at the young age of twenty-seven and I hope you can take advantage of that.

I have an awesome topic for you today. It's about how to change from one engineering discipline to another, which I get so many emails and questions about. So today I work with a younger engineer on the show, coming up on the coaching segment, who has that problem and I help him to create a plan to actually realize his dream of getting into the environmental engineering field.

But before I jump in - and I will jump in shortly - I want to talk real briefly about the *Institute for Engineering Career Development* meet-up that we had in Austin, Texas a few weeks ago. I'm still really pumped up about it. I've actually taken all of the information from the meet-up and put it on my website for you in a summary. For those of you out there that couldn't make it, you can go and check it out. And that's at engineeringcareercoach.com/austin. We had about fifteen engineering leaders there and we broke down, in that blog post I broke down some of their thoughts, some of their quotes, some of the books that they recommended. We also had a top personal development expert, Brett Harward there and I summarized his talk as well, in bullet points and linked up to his book there.

The information is there and for those of you that are IECD members, we're also working on getting the videos onto our private network so we should see those soon. So I'm not going to go into too much detail there. The information is there for you to check out. What I want to do right now is jump



right in to the coaching segment of the show because we're getting back to that this week, coaching a young engineer on how to switch disciplines.

Coaching Segment:

Anthony: Alright, now it's time for the coaching segment of today's podcast. And with me today I have a guest, a younger aspiring environmental engineer, Ben from New York. Ben contacted me with the challenge of trying to go from one discipline in engineering to another and I'm going to briefly read you a couple lines from his application and then I'll let him describe it in his own words - "Hello Anthony. I am a Bio Engineer by training, having graduated in 2006 from Binghamton University. I've been working a bit in the biotech world but mostly in the IT context, one of my first jobs out of school and then IT outside of the biotech world too. What I'm interested in at the moment is learning more about engineering in the environmental engineering world. I want to better the world by applying my engineering skills and maybe developing more skills. I think I need help expanding on my goals as well as guidance on the next steps." Alright Ben, so first of all welcome to ***The Engineering Career Coach Podcast***.

Ben: Thanks Anthony. It's good to be here.

Anthony: So why don't you start off by describing for me and our listeners a little bit, kind of expanding on what I just read from your application and tell me kind of where you're at and what you're really looking to get help with today?

Ben: Yeah, I think it all kind of goes back about, probably like twelve years ago or so. I had a bunch of friends that started this organization called 'Operation Groundswell'. And what it was is this organization where they said it was 'backpacking with a purpose' and they would go to different countries and do, sort of provide services to those countries, just kind of help out in whatever way they could. They did a soccer camp in some place. They helped build a couple bathroom facilities in another place.

And I just found that really inspiring and so ever since then I've kind of had my radar up for other interesting missions and came across these water well projects that they do in Haiti and Kenya and other countries throughout the world and I thought, "Wow, I really want to be a part of that. I want to go somewhere and bring the supply of clean water to places that don't have it." What important work to be doing. So yeah, I wanted to be a part of that.

Anthony: Okay. That's great. That actually sounds a lot, kind of like 'Engineers Without Borders'.

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Ben: Yeah.

Anthony: Sounds similar and I know that they're both, well I know 'Engineers Without Borders' is a great organization. Alright, so I understand that. So basically, you had this track in kind of biotech but then you talked to some friends and what they're doing getting out there, making a difference, seeing the world, kind of sounded more interesting to you and it was inspiring and so that's what kind of triggered this idea, correct?

Ben: Yeah, that sounds good. Yep.

Anthony: Okay, so tell me what your biggest challenge now is in realizing that dream in kind of going from the biotech and the IT stuff you've been working on into the environmental world. Is it the job? Is it the goals? Tell me what's really holding you back.

Ben: Well yeah, I think my sense, it's a couple of things. I have some sense of my goals but I do want to lay them out more clearly, even like literally putting them up on the wall I think would be great but then it's also that income. Right now I'm working really part time and I'm not making as much as I'm spending. So I need more income and I don't really have much experience in that world of engineering yet, well practically none. So I don't think I can get a job there yet doing interesting sort of environmental engineering projects.

I might have to take an IT job right now just to kind of cover my income. So just kind of figuring out where to start and just sort of make that transition sort of while making enough income along the way, not just jumping into a volunteer project because you're not getting paid for that. So that's kind of where I'm at.

Anthony: That's great. Those are really clear kind of challenges that we can jump into here and I think that this is a very interesting topic for those of you out there because I think a lot of engineers fall into this category of, "I'm not doing the exact kind of engineering I want to do. I want to be doing something else that I'm more passionate about but I'm not exactly sure what it is, I don't have enough income to just leave and take a chance at it, I don't have the experience to get the job." I think these are very typical challenges when someone is trying to kind of change over into another discipline.

So let's kind of take them on one at a time. Let's start with the first one and talk about your goals a little bit. You explained to me already that your friends kind of turned you on to this through their backpacking venture, the 'Operation Groundswell'. So tell me Ben again, I know you touched on it a little bit but reinforce it for me as to why you want to do this type of work.

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Ben: Yeah, it's a good question. I mean it's just, it's kind of like what you've talked about on a lot of your shows, like the passion, doing something I love. I'll just be able to keep doing that work. I'll want to wake up. It'll be a great motivating factor to do the work I'm doing everyday. And I think it's just such an important thing I think that for people to not have clean drinking water when it like lives maybe a hundred feet below the ground is just like kind of such a shame that they don't have access to that.

So I feel like these are like salvable projects that we can do to really sort of balance out and sort of equalize the distribution of resources in the world and just get people across the board what they need. So I kind of feel like I almost have a responsibility to do that because I kind of get enough of what I need so I kind of feel like it's only fair that I see to it that other people get what they need too.

Anthony: Okay, well that's great. So it sounds like you're pretty clear on that. I mean you want to help people. You want to use your skills, you want to use your knowledge, you want to use your education to kind of give back to people that aren't as fortunate and help them, which is excellent. That sounds like a very strong 'why' that you have.

Now let's think about like your hard goals. So meaning, in order to accomplish this let's come up with a couple of goals that you can see that are real, actual goals that you need to accomplish to get this done. Give me a couple.

Ben: Well you mentioned 'Engineers Without Borders' and I don't know how, I think they're a little more sort of flexible there in terms of how much hard experience you need to have. So I might be able to get into a project there and get some experience. But if I'm to really learn like the skills that I want to learn then I feel like it would be joining an engineering firm and sort of working in waste water treatment or something along those lines and I think my understanding now is that I probably need a Masters in environmental engineering or at least some university course work.

Anthony: Okay.

Ben: To sort of qualify me for a position in an engineering firm.

Anthony: Okay. So let's break this down a little bit. So basically Ben has identified what his, kind of his passion is and he wants to achieve it. He's identified that the thing that he'll have to do ultimately to achieve this passion is to get work in the environmental engineering field and get a job there, which makes a lot of sense. And he's also identified that in order to do that he's most likely going to need to obtain a Masters degree or some course work, some I guess graduate course work beyond the typical engineering degree, in the environmental field. And some other experience like 'Engineers Without Borders' might be helpful. Alright, so I definitely agree with that.

Now we can kind of dive in to how, some of the steps to achieve these goals and how you might achieve them. I think that one of the things that you have to think about Ben, and everyone out there listening should also think about this, is that you always want to stay open minded and you always want to understand what your why is and understand that there's multiple ways most likely of achieving that. So Ben's 'why' is obviously he wants to help people that don't have everyday things like water, that we take for granted, and maybe in less fortunate areas or developing countries.

So the question is how can Ben achieve that? I think that a job will definitely potentially help you to achieve that, and of course it's going to have to be the right job. Because it sound to me Ben like, is part of what you want to do travelling and going to see these other countries or is it just generally getting into the environmental engineering field?

Ben: I do think it is getting to interact with those communities in other countries, yeah.

Anthony: Now is there a reason that you can't just go do this 'Operation Groundswell' or something like that and go to another country? Is there some kind of requirements or is it monetary?

Ben: You know I don't remember exactly what the protocol is. I looked into it a few years ago. I can't remember exactly if they're doing those water well projects anymore. I think it just, that's sort of what put me on to the idea of the water well projects. But the 'Engineers Without Borders', like you said, that's probably a good thing to jump into now. 'Operation Groundswell' I think would cost me.

Anthony: Okay.

Ben: Even if it didn't cost me I wouldn't be making an income and I need to be making income right now.

Anthony: So you have responsibilities that you have financially that you need to make income.

Ben: Yeah.

Anthony: So in other words, you couldn't just go work in another country for a year and just live off whatever they pay you there, you need to be making income.

Ben: Well, I mean if they paid me there I could, yeah.

Anthony: Okay, and that's what I'm just trying to get you to think outside of the box. So like one of your options might be to find a, I mean there's a lot of things like this 'Operation Groundswell',



'Engineers Without Borders', 'The Peace Core'. I mean there's so many different kinds of organizations like this.

One option that you could have potentially is that if you couldn't find a traditional engineering job here locally you could just potentially say, "You know what, I really want this bad enough. I'm just going to kind of pack my bags. I'll get rid of most of my possessions and just go to a third world country and live there for a year or two and do this job. I won't need a lot of money because you don't need a lot of money to live there. I'll gain a lot of experience, hands on experience. I'll meet a lot of people in the field." And that's an option. As long as you're okay with relocating and stuff that's potentially an option. But I just want to bring that up because sometimes we think that the option is you have to get this traditional job and you need to get this salary and stuff - this is another potential option for you.

Ben: Uh-huh. Yeah, that's a great idea. I think it would be kind of hard to leave New York City, where I am right now, just because of stuff I have going on here, like with my dad - he's not doing too well and just a lot of family and friends in the area. It would be hard to get away right now.

Anthony: Okay, that's fine.

Ben: I do appreciate that, I'm going to keep that out there you know.

Anthony: Yeah, keep that out there. So let's assume you're going to stay local now and let's look at some other steps. So if you can't get an engineering job in the environmental field right away because of the experience levels, which is certainly possible...

Ben: Uh-huh.

Anthony: ...then this scenario that I would consider is to get a job doing the IT, like you said, or some job that could potentially, that could pay the bills, whatever the job is.

Ben: Uh-huh.

Anthony: I guess if it's in the engineering world or IT related, it's probably better than if it's not.

Ben: Right.

Anthony: Then what I would do is I would try to do two other things. One, take some of the course work that you mentioned but secondly - well it's actually three things, I'll break up the next one into two. Secondly, and I would actually do this first, is I would go to find environmental engineering associations, whether it's like the American Society of Civil Engineers or there's more, very niche

environmental engineering associations. I would attend some of their events, their networking events, their social events, their dinners. There's got to be things like this in New York City. And get to know people in that field and number one, you can ask them any questions that you have about the field and start to learn stuff.

You can also ask them other questions like, "Is there certain courses I should take? Is there certain certifications I should take? Is there certain computer program, maybe I could take a course on that to make me more valuable?" Like for example I know from some of the members in my IECD community that the ENVSP credentials - I don't know much about it - is becoming more important on that field. So I would actually do that first if I were you before you start to jump into some course work so you can understand from them, make sure you're going in the right direction.

Ben: Right.

Anthony: That's one thing I would do and then the third thing I would do is I would try to join 'Engineer Without Borders'. I believe that anybody can join. It's volunteer. There's a big chapter in New York City you can join. They have night meetings and you can actually start to work on environmental projects in other countries. And if you're lucky enough, depending on how active the group is and how active you are, you may even get selected to go on one of their trips to the countries to implement the project or check up on the project.

Ben: Uh-huh.

Anthony: Alright so let me outline those steps again for everyone listening here. So the first step for Ben would be to maintain or get a job in the IT world to keep his income level where it has to be. The second step would be to get involved in any environmental professional associations, and not necessarily join them. I'm sure you attend some of their events just as a non-member to get to network and get to meet people and get to ask questions.

I mean there's nothing better about trying to get into a new industry than talking to people that are already there and starting to build that network. And who knows, if you get really lucky maybe you'll find someone there that's looking to give you a part time or something to try out and get right into the field, which would be ideal.

Ben: Uh-huh.

Anthony: Otherwise you're at least learning about the certs, learning about the guidelines, learning about opportunities of how you can make yourself more marketable in that field. And then lastly, you can start to act on that information, whether it's getting your credential, going to some school courses

or some webinars or whatever the case may be. So that's kind of the steps that I would follow if I were you and obviously as soon as you think you feel ready to try to get a job or if you talk to enough people you might be able to get something. But that would kind of be my progression. What are your thoughts on that?

Ben: Yeah, it sounds really good. It makes a lot of sense just kind of like covering all the bases, the income and then sort of starting to get my foot in the door and make those connections, those relationships. Yeah, I'm just trying to think about, you recommended reading or listening to - I got the audio book for "How to Win Friends and Influence People" and it's just an amazing resource so I think I can like really leverage that when meeting people at these meetings, at these professional meetings.

Anthony: That's exactly it. And to those of you who are listening to the show for the first time, I do a career changing tip at the end of each show, where I try to give listeners a tip that will really change their career, change their life and Ben is referencing one of them that I gave in an earlier podcast about the Dale Carnegie book.

That's exactly what I was going to say next Ben is you can use those skills like that and networking skills when you go to these events and really when you go to these events just be inquisitive and just tell people, "It seems like, just from talking to you for a few minutes, you're really established in this field, you're pretty knowledgeable on this field and my dream goal is to get into this field. How can you help me? Can you give me any advice? Can you give me any resources or point me in the right direction. I know, just speaking for myself, that if a younger engineer came up to me at an event and asked me that question and I was in that field, I would definitely help them. I think you'll find that to be the case when you approach someone like that in that way, they'll be pretty helpful.

So that's something I would do and one more thing that I can add onto that is if you go on LinkedIn, you can also find some environmental groups, like really niche groups and you can probably join some of those groups. Even if you don't get that engaged in it, you can just read some of the discussions and just learn from people and just see what they're talking about and be able to pick up some of the industry trends.

Ben: Right. Right, that's great.

Anthony: Alright, so I think you've got a pretty good plan of attack here. Let me know what you think. Let me know do you have any other questions right now that are popping up for you before we close things off and you can get started on this?

Ben: No, I just kind of the unknowns that remain are I'm in the interview phases of this IT position. I have a phone interview for them tomorrow, which would lead into an in-person interview I believe. So

that kind of remains to be seen and then I've been to a couple professional society meetings. I went to a, I think it was NYWEA, New York Water Environmental Association and it was pretty interesting. I guess the trick is really making the connections there.

I guess I've got to keep listening to Dale Carnegie because I just kind of felt like an oddball a little bit half the time, just sort of standing on the out, not exactly on the outside of the room but I kept thinking like how am I going to engage people. All I could think was like, "Okay, how do I get into this field?" and it was kind of hard to focus on just building the relationships with people but I think that's what I need to do.

Anthony: Hey Ben, here's what you can try, and I know it sounds a little silly but just play dumb. Walk up to someone and say, "I'm not an environmental engineer, I'm not in this field but my dream is to be one. I really want to be one and I'm here to try to seek some guidance and seek some help and I'm just wondering if you can give me any advice on the courses to take or companies to talk to or mentors that I can find or really anything is what I'm here looking for." Start like that.

Most of the time, like I said, if you start like that and people see someone in need, they're general instinct is going to be to help. I think what you don't want to do Ben is you don't want to go in there and try to act like quiet or like sneaky. Just be out in the open. Just be totally honest and just say, "I really have no idea about this industry. I'm here because I want to learn and I want to get into it." I think that you'll find that if you do that people will be more apt to help you.

Ben: Right. Right. That makes sense. That makes sense, yeah. Yeah, just coming right out with it. Yeah.

Anthony: Yep, and as far as the interview goes, I certainly wish you good luck with that and if you go to engineeringcareercoach.com/session10, that podcast session is called Acing the Engineering Job Interview. You should get some good tips off of that for the interview.

Ben: Oh awesome. Okay, yeah great. I'm going to listen to that right now.

Anthony: Alright Ben?

Ben: Yeah that's, this is great. I appreciate you spending the time with me and just kind of walking over what the plan is that, yeah I feel more prepared so it's great.

Anthony: Great, and for those of you out there listening, I'm sure there's many people out there, engineers that listen to the show that want to make a change in their career, that want to go from one discipline to the other. So some of the stuff that Ben and I spoke about will be listed in the show

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notes for this show, as well as the links of some of the websites we mentioned, like the Groundswell and the EWB, and you'll be able to get those show notes at engineeringcareercoach.com/changingover. That's just one word 'changingover'.

Again, the whole idea of changing over from one discipline to another, it's very common, it's a question I get all the time and that's the reason that I wanted to have Ben on and do this show. So with that, Ben I wish you the absolute best of luck and hopefully we'll catch up and I can hear how you're doing in a few months from now. And with that, we're going to jump over and head for our career changing tip to end off the show.

Ben: Okay, thanks a lot Anthony.

Anthony's Career Changing Tip: Alright, now it's time for our career changing tip, and as you heard before I mentioned, or Ben mentioned the one about the Dale Carnegie book and that's the point of these tips, you can take it, implement it into your career and literally see a change like tomorrow.

And so for today's career changing tip I want to kind of play off of the coaching segment we just had and I want you to do this. I want you to take a blank piece of paper and I want you to write down one of your goals and the traditional route for getting there.

So for example, and this is just a real simplified example, your goal might be to get a Masters degree in a certain field. Alright, so you'd write down the application process, call some different schools, visit different schools, find local schools and take the courses. And then I want you to think about, right next to it write down a nontraditional method of doing that. So maybe it's, again this is a simplified example but maybe it's an online engineering course. You didn't think about online so you start to research everything online and talk to people or look at different kinds of Masters programs other than, maybe instead of an MBA, a Masters in Engineering Management.

So my point is what I want you to do is I want you to think outside the box, be unconventional, be nontraditional. That's what I talked a little bit to Ben about, who just assumed in the beginning that he would have to stay put in New York City and do his job and then we talked about possibilities of just travelling somewhere else, selling everything, going and living your passion. So the point of this career changing tip is you may be chasing a goal in your career for a long time not realizing that there's many other ways to get there. If you think about your 'why' and understand why you really want that goal, I bet you that there's several different vehicles that can help you to achieve it.

Anthony's Closing Remarks: Alright, so with that we're going to end off today's show and I want to



remind you that I have a tremendous amount of free resources for engineers on my website at engineeringcareercoach.com/freeresources. Please take advantage of them and if any of you are interested in ever coming on the show you can also just contact me through the contact page on the website. Until then, I will catch you on the next podcast.

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