

Too Many Words About Food

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Introduction

Writing introductions is hard. It doesn't really matter if I screw this one up because you're not reading anymore. Nobody reads introductions when they realize that these words are sitting between you and what you're really interested in. Normally these things kick off with a brief story about the inspiration for a particular work or some anecdote that tries to answer the all important question of "why?"

So here's my interesting story that I hope will illuminate by way of metaphor.¹ I hope you find it interesting because I find it fascinating. During World War II, the American Armed Forces used islands in the South Pacific as staging areas and airstrips to push the war effort to the Japanese front door. Some of these islands were uninhabited, some were civilized colonies like the Philippines, and some had inhabitants who had never seen 20th century technology. These island tribes would watch American planes land and bring cargo and goods onto the island. Some of these goods would be shared with the native people and represented an amazing amount of wealth that came from the sky. Eventually WWII ended² and the goods stopped coming³. Later, when anthropologists returned to these islands, they found cults had sprung up that worshiped fellas called "John Frum" or "Tom Navy"⁴ who would bring them vast amounts of wealth from the sky. These cargo cults even built shacks with radio equipment made out of wood and bamboo with fake wooden headphones which the cult had hoped could be used to call down airplanes full of wealth.

The cargo cults had built themselves around receiving good things by mimicking actions. They didn't know about Maxwell's equations which define electromagnetism in general and radio communications in particular. They had no idea that there was an entire war effort which mobilized an entire nation to moving war material west towards japan and instead thought that if they went through the motions of calling in airplanes, that airplanes full of cargo would appear. They did not fully grasp the answer to "why?"

Alton Brown was on Food Network at a time when many of us geeks and nerds were discovering that we had to cook for ourselves and that microwaving our way through life wasn't enough. He scratched the itch that us geeks and nerds had when it came to how we approached the world. Sure, he focused on the how and the when, but also shone a spotlight on the question of "why?"

I have taken that approach, every class I try to anticipate the why and answer it ahead of time. Why should I saute instead of bake? Why should I brine? Why should I cut into cubes instead of slices? If you know why you are doing what you are doing in the kitchen, you'll be able to make decisions about everything you do. You are taking power back from the TV chefs and the food blogs and experimenting in the kitchen. There are some rules that every cook learned from experience but there are others that are fuzzy. Many cooks take an "It just works when I do that" mentality to cooking that can seem dogmatic

¹It's not really mine and I'm not even sure that it's historically accurate, but I have seen far too many people behaving in such a way that I treat it like a parable.

²So I'm told

³Unlike these footnotes. I will abuse these bad boys until the sun goes down.

⁴Serious footnote, I am not making this up: https://en.wikipedia.org/wiki/Cargo_cult

to beginning cooks. It makes cooking seem arbitrary and overly complex.

I hope that you never feel the need to build a wooden radio to summon wealth from the sky and will continue to learn about the physics, chemistry, science, and art of cooking.

Structure

I wrote these posts for the [/r/cookingcollaboration](#) subreddit over the course of a year. Each month had a unifying topic and theme. Where applicable, I tried to have additional sections with videos and images from around the web. I have not captured the comments or discussion but you can probably find them linked on the subreddit wiki. I also omitted the repetitive introductions and notification from each monthly post. I should probably remove those from the original reddit posts but I probably won't. As a final note, I created additional class tie-in posts on reddit that would supplement some months. I have not included those but left the hyperlinks intact.

I have edited and cleaned up the original posts but typos still exist. Once this is posted, unless I make an error that puts health and safety at risk, I probably won't revisit this document to make an edit, so deal with it.

Originally, I had broken down the class into 4 quarters and each would focus on a core idea. I think I tried to stick with it but had to re-arrange as I covered topics early or decided against including some. Here's the original quote about each quarter's theme.

Q1: Basic cooking skills. For the first third of the year, each month's focus will be on basic skills used every day in the kitchen. Applying heat, Measuring ingredients, and knife skills. By building a foundation of basic skills, the cook can focus on more advanced techniques, but without them, they are lost in the kitchen.

Q2: Consistency. Once you have built the basic skills, being able to do so repeatedly is a skill. The second quarter will focus on cooking every day and not getting lazy. By now, you should be cooking 3-5 dinners per week and finding recipes that you can use. As such, this quarter will focus on quick recipes that can be prepared and executed in a minimum amount of time but require consistent application of measurement and techniques.

Q3: Multi-tasking. Being able to make one dish per night is good, but being able to prepare side dishes along with full meals requires discipline and consistency. In order to make effortless multi-dish meals, multi-tasking is required. Additionally, by now, you should be cooking at least 5 meals a week.

Q4: Specialty. It's the holidays. When people think holidays, they think Halloween treats or thanksgiving meals. Take the solid foundations built during the first three quarters and start showing off for people.

Class 00: Introduction and Required Materials

This was the first post I wrote. I posted it in mid December of 2015 as an introduction to the class. I wanted to introduce my philosophy and an expectation of the materials someone would need in their kitchen to follow along. I tried to limit my requirements to fit what I outlined in the original post, but I think I slipped in a few places.

Introduction

The goal of this class is to have the community help each other learn to cook. Every month, I will post a theme with some example YouTube videos and recipes that will illustrate and illuminate the lessons that hopefully everyone will learn over the course of the month.

Now, here is where YOU come in: This won't be a normal cooking class where I do all the talking and you do all the learning⁵. In every monthly thread, I will post some instructions which will inspire some discussions, and then I will expect you to find recipes that you have never cooked before to share and learn from as a group.

Why new-to-you recipes? Every cook needs to be able to find new recipes and evaluate how they will turn out. From day one, I will expect you to find recipes to share with the sub. In addition to that, I will expect you to be thinking about what it takes to successfully execute a recipe. Try to think about how long it will take you to cook from start to finish, what substitutions you might have to make, what pieces of kitchen equipment you'll need, and to anticipate points where you might "mess it up".

Monthly Topic - Required Materials for the Class

Learning how to cook in a proper kitchen is hard enough, learning in an understocked kitchen is even harder. While not everybody has access to a full kitchen,

⁵Not holding a grudge or anything, but at the time that I'm compiling this, two of the class posts have no comments. I just suck at encouraging community involvement. It's on me.

people may miss out on learning how to bake stuff if they don't have an oven. Having a hot plate will get you most of what this class is trying to teach but you will miss out on something if only because cooking involves more than simmering/sauteing/frying/boiling.

The required materials are what I consider to be the minimum for daily cooking and should be enough to cook most recipes that I'll bring to this thing.

A kitchen with a stove, oven, microwave, sink, refrigerator, and possibly a grill out back (this last one is optional since not everyone has access). Make sure you have essential cooking tools: knife and cutting board, tongs and spatula, ladle and spoon, cheese grater, and a pair oven mitts. Additionally, if you have a crock pot, we'll talk about that later.

For the bare minimum of cookware, you'll need a stock pot (6qt or so), a non-stick frying pan, a roasting pan, a cookie sheet, and a sauce pan. It is also a good idea to have matching lids. If you want to get fancy, I would recommend a cast iron pan, an enameled cast iron dutch oven, and an all steel frying pan.

Measuring cups and spoons. As a note: I measure in "Freedom Units"⁶ which means ounces, cups, teaspoons, tablespoons, and all those other fractional measures. They make dual marked measuring devices that have both ml's/grams and cups/ounces/spoons or if someone wants to translate, they may.

Videos and Recipes

Normally I would gather some instructional stuff and post/link it here, but for the introduction, I'd like to share some of my favorite videos to get you into a cooking mood. These three videos should persuade you to stick around even longer. Cook because it is essential, beautiful, and healthy.

Cook because it is essential: I love cooking and this guy states my philosophy better than I can. Watch for the five most entertaining minutes of cooking you'll see in quite a long time. Beware of this recipe as listed as the balance is heavily skewed towards bitter/sour. If you make it, the pork comes out great but flavored oddly. I learned a valuable lesson from this recipe - If it doesn't taste good going into a low and slow cooking session, it won't taste good coming out. Make the sauce as listed and then make it taste good. **Puerco Pibil by Robert Rodriguez** (Beware of Language) - <https://www.youtube.com/watch?v=Vrw5FkLutWk>

Cook because it is Beautiful: Fancy doesn't have to be hard. Open a packet of spaghetti LIKE A BOSS and get cooking. **Pecorino cheese & pancetta spaghetti carbonara - Rick Stein's Mediterranean Escape - BBC** - <https://www.youtube.com/watch?v=t1cUwX4Xzt0>

Cook because it is Healthy: This is as preachy as I am going to get for the rest of the year⁷. It is nearly impossible to make something as unhealthy as a quarter

⁶Durn Skippy

⁷I tried, but I think I let some preachy show up in later months. I know I have a whole grudge against people who insist on letting everyone else know why they are superior because they measure by weight. Give it a rest, put your scales and your megaphone away and let

pounder with cheese in your kitchen, but it is almost as impossible to eat consistently as healthy as homemade while eating out. By cooking for yourself, you will eat healthier than you are now. **Jamie Oliver's TED Prize wish: Teach every child about food** - https://www.youtube.com/watch?v=go_QOzc79Uc

Recipes:

Let's get started translating and adapting recipes! Normally I would post a few sample recipes, but for month 0, I am posting an exercise below. Find a recipe in that sounds interesting, post a link to the page (the URL changes every time you flip the page) and then to list ingredients and steps in a modern format. Bonus points if you make it.

Discussion

Before we jump to the meaty discussion, introduce yourself!⁸⁹

1. What do you like to cook?
2. Who is your favorite chef (famous or family)?
3. What is your favorite cook book and why?
4. What are you looking to learn?
5. Do you have any recipes that you would like to make but are afraid and why?
6. What ingredient do you just not like and could you be persuaded to try it if the right recipe came along?

I have what I call "Essential cooking liquids" and "Essential spices/seasonings". I use these almost daily as supporting ingredients in my cooking.

- My liquids are Olive Oil, Balsamic Vinegar, Red Wine Vinegar, Soy Sauce, Worcestershire Sauce, wine, and some sort of citrus juice.
- My essential spices/seasonings are Kosher Salt, black pepper, basil, thyme, oregano, garlic, dried onions, and sazón.

Essentials questions:

1. What liquids do you use regularly that didn't make the list?
2. What spices and seasonings do you also use regularly that didn't make the list?
3. What recipes do you cook regularly (or want to make) that showcase a particular ingredient (listed or missing here)?

people make biscuits like their grandma did.

⁸This is no longer an interactive exercise.

⁹For me at least. You can answer these questions however you like, but I have not included a contact email so please don't feel the need to share them with me.

Recipe Discussion

I expect you to find new recipes that you have never cooked before. Cookbooks are great resources and I encourage you to find and attempt recipes that you have never made before, but the internet has revolutionized how people eat.

Here is a cookbook from 1896, hunt through it and try to find a recipe that looks interesting. It doesn't follow the modern recipe format and instead employs a narrative. For fun and practice, find a recipe and translate it into a modern recipe format with an ingredient list and steps. If that is too much, post your recipe that you want translated and maybe someone will help you. Here is a link to the index: <https://archive.org/stream/tchirkycookbook00tschrich#page/n905/mode/2up>

Additionally, if you want to post your own recipe from another source, go ahead.

For every recipe you post, think about the following questions

1. How long will this take to make?
2. How many people will this feed in your house? Will there be leftovers?
3. What equipment do I need?
4. What are the danger points? (Burn? Tricky ingredients? Strange techniques?)
5. Are there any simplifications that could be made? Is the recipe too complex for the end product?
6. How will the flavor balance?

If someone has posted a recipe and you see an unanswered question, don't be afraid to make a suggestion!¹⁰

Conclusion

For this month, get ready to get cooking next month. I am revising the month order for next year, but next month will focus on different ways of applying heat to ingredients. I hope that you stick around and contribute to the discussion. Everyone starts somewhere and I am still trying to get better as well. If you feel like I missed something or would like to expand on a point I made, go right ahead.

¹⁰I use a lot of exclamation points early on. Maybe someone will plot the decline in their use and the decline in audience participation. I blame the lack of interrobangs though.

Monthly Classes

Class 1: Applying Heat

Introduction

Shortly after removing their burned fingers from fire, early cavemen started sticking other things into their fires and finding that meats and vegetables were improved by the experience even when their hands were not. Applying heat to food is the most primitive, but also the most complex¹¹ part of cooking.

Monthly Topic - Applying Heat

When it comes to cooking, the ends do far more than justify the means. The reason that we apply heat, acid, smoke, steam, and other cooking methods is entirely to bring a piece of food up to a temperature where physical and chemical changes happen. We cook vegetables to break down cell walls which makes their nutrients more accessible. We cook fruits to break down starches into sugars and make them sweeter. We cook meats to alter the proteins and sometimes break down collagen.

When we cook foods with the right kinds of sugars or proteins, the Maillard reaction occurs and we get everything from caramelization¹² ¹³of sugars to browning of breads to the browning of meats. This brown crust can wash off of meats or vegetables and if you let a perfectly browned steak sit in sauce, you may find that it's just a steak¹⁴ after a while. Sometimes that's the goal, like when you brown meat before adding it to a stew or crock pot recipe, other times losing the brown is something to be avoided. The method you choose to apply heat can either encourage, prevent, or dissolve these beautiful flavor compounds.

¹¹I may have overstated this. Over the past year, I have discovered that getting my kid to eat any food as he moves into the picky phase of his childhood is the hardest and most complex part of cooking.

¹²Caramelization isn't a word, but it is a non-word that only happens to sugars. A pet peeve of mine is when people talk about caramelizing meat. Unless you sprinkled your meat with brown sugar, you're not caramelizing your meat, you're browning it.

¹³Adding brown sugar to pork dishes, both roasts and BBQ is amazing, by the way. Caramelize your pork all you want.

¹⁴Naked and gray.

If you apply too much heat for too long, bad stuff happens. Things burn, meat gets chewy, food gets dried out, or you have to break out your fire extinguisher (you do have one, right?¹⁵). Thus, the art of applying heat becomes a balance between applying just enough heat to make the changes you want to see in your foods and avoid changes you don't want to see do not happen to your food. My favorite tool for this is a digital meat thermometer. They run between 10-20 bucks and last me about a year. My current one has a partially functioning display but refuses to die so I refuse to replace it. Seriously, buy a meat thermometer. In the future, I may say "Cook until the internal temperature reaches 155^o" without giving a specific time because everyone's oven is different, every piece of meat is different and the only true gauge of doneness is temperature. If I give a time range, it's for planning purposes because the ingredients **should**¹⁶ be done in that time, but the only real way to tell is with a thermometer.

We also cook because of food safety. As always, wash your hands often, never use an implement that has touched raw meat to handle cooked foods unless it is also exposed to sanitizing levels of heat. In the US, while salmonella has infected almost every stage of the chicken processing line at one point or another, the pork industry has improved controls to eliminate trichinosis which means that while it is absolutely vital that you cook your chicken up to a salmonella killing temperature, pork is now safe to serve medium. Other meats may be clean from forborne pathogens found on the farm, but may have picked up something in the butcher's shop or factory. "Cleaner" meats still need to have their outsides cooked up to a point where bacteria are killed but their insides may not need to reach that point.

There are a ton of ways to apply heat to food, each has its specific uses. For example, there's a reason we use dry heat to make hamburgers and not boiling¹⁷. There are far more ways to apply heat to food, but I'll stick to the common methods because you can often substitute a fancier method for a simpler one for similar results.

Saute

There are so many names for this method, but they all have one thing in common¹⁸: You place some food on a heated piece of metal which transfers heat via conduction. Whether it is stir fry, hibachi, or pan fry, the method of putting

¹⁵Reddit doesn't support footnotes, so I'll leave the inline asides inline. All these real footnotes were written during the compilation of this document.

¹⁶This is bolded because I realized very early on that I shouldn't be telling you what to do. If I used the word "should" I would be taking the power of understanding and exploration away from you. You're here because you're tired of people telling you what to do in the kitchen, you're here because you want to know why you should do things in the kitchen.

¹⁷Do not boil your hamburgers, unless you want to make hamburger soup. This is an old comfort recipe in my family: Fry about a pound of hamburger and drain. Add water (6-8 cups?) and beef bullion, chopped celery, bay leaf and 1/4 cup of ketchup. Boil for 40 minutes. Add noodles and boil for 8-10 minutes more.

¹⁸They lack the † character.

food in a pan and then applying heat from below is as old as clay pots and cooking fires (maybe older). To prevent the proteins or sugars in the food from bonding to your pan, put some oil in the bottom and that will keep the metal separated from the food. In general, 1 tbsp of olive oil will keep a piece of meat from sticking, but more fat or oil may be required for foods with more surface area, like chopped vegetables. Some meats will release their own fats, like bacon, but most things you saute will require some help.

When you saute food, you create a sharp temperature gradient where the piece of food that is touching the pan is hottest, but is cooled by the rest of the piece of food above. You can see how food heats up from sauteing in this video. Based on how you want that gradient to flow you may need to stir often or flip just once.

You can saute in just about any type of pan and I have been known to saute in my enameled roaster, my dutch oven, my stock pot, as well as my more traditional skillets and pans. Additionally, when sauteing, while I have used my fingers, chopsticks, spatulas, but my preferred tool would have to be spring tongs. I never use metal on my non-stick because that makes Julia Child cry¹⁹, so I use my steel pans when I need to whisk something. I have a 12" steel pan that I call my "Beater Pan" because if I need to whisk up a sauce or generally do something that would destroy a less hardy surface, I do it in that.

Sauteing is great for cooking flat pieces of meat, cooking without a lot of liquid, or creating a bit of sauce. You wouldn't want to saute a roast unless you were hoping to brown the outside before finishing in the oven, because the gradient only comes from a very hot surface (above the burn temperature of most foods). If you try to cook a large piece of meat in a frying pan, you will end up burning the outside before the gradient reaches the inside. Sauteing is good for smallish pieces of food or for browning larger pieces of food before applying other forms of heat.

A note on browning - Water gets in the way of browning²⁰ for two reasons: the first is that it will wash/dissolve away any browning that has happened. The second is that it cools things down. Your pan may be ripping hot but any water sitting on the pan will keep that portion of the pan at 212°F because boiling water is amazing at cooling stuff (more about that soon). This is why you want to not overcrowd the pan. If you do, liquid will leak out and cool things down and/or wash away the browning before it has a chance to evaporate. If a recipe says to pat meat dry, that is because the author wants you to remove surface water to encourage browning. Some cooking methods can overcome that, but when sauteing, minimizing H₂O on the pan is king unless you wish to use another method like braising or...

Boil

Take a pot of water, place it over heat, and wait till bubbles form. Simple, right? Until you start actually using it to do things. Boiling foods in water

¹⁹It's absolutely heart-wrenching

²⁰The enemy is stealing our liquids? No, the liquids are our enemy.

serves two purposes. For foods that leech flavors, it's a way of moving flavors from the food into the water, or from the flavored water into the food (such as salting the water to boil pasta). It is also a way of applying uniform heat that is around²¹ 212°F while hydrating dry foods or keeping others moist. Water is a fantastic conductor of heat and also has a very large amount of heat retention. In layman's terms, this means boiling water will quickly bring anything you put in it up to 212°F and keep it there. It will also keep food from drying out²², but may make it soggy. Some meats that are boiled will lose flavor AND have their proteins tighten up so much that any water held within is pushed out and paradoxically, may lead to tough, dry meat.

You want to boil in stock pots or sauce pans. Generally anything that is as tall as it is wide will work, but you can boil in skillets or casserole dishes if you want. I'll occasionally use my electric kettle to boil some foods and the microwave to boil others.

You may already be familiar with what foods you want to boil, but don't limit your boiling applications to just soup, noodles, and hard boiled eggs. I boil chicken wings before tossing them in the oven to render out the fat and infuse some salt. Sometimes if I make enough wings, the water is worth saving to turn into a broth, but most of the time it's just salty chicken water²³.

In general, you want to boil in preparation of soups or when you rapidly want to bring food up to 212°F, such as when blanching vegetables, but be careful that you don't over boil and end up losing all of your water soluble flavors in the process.

Steam

Do you remember your chemistry class? I barely do, but one of the takeaways is that when (forgive me, but I science in Metric and cook in Freedom Units²⁴) 1 g of steam condenses from gas to liquid, it releases enough energy to raise 539g of water 1°C. This means that when water vapor condenses onto food, it brings a tremendous amount of heat to the party²⁵, but steam stops condensing on food when it reaches 212°F. If food were any hotter than that, it would start losing heat via the phase change from liquid to gas, but when it is cooler than that in a steam environment, food gains heat from the change from gas to liquid²⁶.

²¹One of the things I learned this year was that simmering happens below the boiling point of water, which is why recipes call for a simmer, they're trying to get you to cook things at 190-200°.

²²I contradict myself in the next sentence, but it's for the greater good.

²³11 months later and I still can't explain the difference between broth and "salty chicken water"

²⁴Murica.

²⁵This is a common theme throughout these posts. It's never a dish or a meal, always a party. There's a party in my pan and everyone's invited.

²⁶I left this out of the original post intentionally, but to evaporate 1 gram of water, it takes 2257 joules. In reverse, when 1 gram of water condenses from steam, it release 2257 joules. By way of comparison, it only takes 4.18 joules to increase 1 gram of liquid water 1 degree Celsius, or 1 gram of water condensing from steam can heat 539.95 grams of water 1 degree Celsius, or heat take 5 grams of liquid water from the threshold of freezing solid to the doorstep of

Steaming is another way to bring food up to 212°F without some of the drawbacks of boiling. You don't lose nearly as much flavor to the water as you do with boiling and you can steam with some other aromatics to infuse flavor. However, boiling is still quicker²⁷ because gasses (especially gaseous water) are less dense than liquids, so even though you have that explosive energy transfer, there is less *stuff* to transfer that energy surrounding your food. This is why the average home cook boils eggs rather than steaming them, but we've all eaten steamed eggs from a factory somewhere at some point in our lives. Steamed eggs are very good, but they are harder to do properly without an industrial steamer²⁸.

For steaming, you need a lidded pot (most of the time) and a steamer basket. Tongs are essential since your hand is cool enough for the steam to condense on it and give you some nasty burns.

I like steaming vegetables and seafood since it cooks without drying out or depleting the flavor. Alton Brown steams his chicken wings and I can totally see why, but since I salt the water I boil my wings in, I'll keep boiling as long as salt continues to not ride along with water as it transitions from liquid to gas.

Bake/Roast

Baking involves applying heat via convection and via infrared light. What does this mean? Think about how a fan cools you down on a hot summer day, now imagine that fan was blowing 400°F air. Now put a heat lamp next to the fan. You would be cooked alive, literally. That's what we do when we bake²⁹. The heat isn't transferred directly from the heat element to the pan but instead uses the air molecules as an intermediary. It's a dry heat so it browns foods³⁰ and air isn't very dense so it creates a gentle temperature gradient.

We bake without thinking. We toss stuff in the oven and hope it goes. Baking in the oven is what we remember our moms doing, it's how we make cookies and thanksgiving turkeys. It is a way of gradually applying heat to food so that the outside cooks and the inside stays moist. If you have a large piece of food to cook, chances are that you are going to bake it.

You generally want to bake on a cookie sheet or roasting pan. Anything that maximizes the surface area will help those air molecules transfer heat. Oven mitts are a must since your pan will heat up to whatever temperature your oven is at.

boiling. Water is amazing.

²⁷I have since discovered steaming in my pressure cooker. For some purposes, steaming in the pressure cooker can cook food in half the time of boiling. Thus the only drawback becomes the hassle associated with procuring and using a pressure cooker.

²⁸I do them in my pressure cooker now and they are amazing.

²⁹I saw Sausage Party last week, I think it'll be a little while before I stop thinking about all the cruel things that I do to my food.

³⁰Gas Ovens release CO₂ and H₂O as byproducts from burning natural gas or propane and are less dry than electric heat. That vapor can condense on sugary foods and make it harder to cook a soufflé. Soufflé don't collapse because of sound like in the cartoons, they deflate because it's too humid in the oven.

You could probably bake just about anything, but the gradual gradient means that you may not have sufficient browning by the time that the inside is finished cooking³¹. You can brown, but in some foods where you want that sharp gradient, like a steak, baking is less than ideal.

Braise

This is a hybrid method. Take a larger piece of food, put it into a pan with some liquid, cover, and apply heat. You end up boiling, steaming, sauteing, and baking all at once. If you look up the dictionary definition, it talks about it using wet and dry heats. I'm sure that I'll cause some chef to spin in his grave by saying that I like braising in the oven when I'm lazy and braising on the stove top when I'm impatient.

The Braise method is less a cooking method than it is a process. In general, you want to brown some meat, add liquid (and chunkies), cover, and apply heat so that the meat finishes cooking via a combination of heat transferred from the pan, convection from the closed area, steam from the boiling liquid condensing on the meat, and heat transfer from the hot liquid it is cooked in. This is a fantastic method for when you want to impart flavor from a flavorful cooking liquid into a meat, and then use said liquid as a sauce while cooking other bits like vegetables or potatoes.

You can braise in any cooking vessel that you can cover or you can use what greater cooks than I have called the "pouch method". Take a piece of food, toss into a foil pouch with some liquid, seasonings, and chunkies, and then sealing before placing in the oven. Super easy clean up since chicken doesn't need to be browned, you end up throwing away the cooking vessel.

Braising is good at removing a maillard brown and keeping that flavor handy, but isn't so great for when you want the maillard brown to stick to the food you're braising. If you aren't careful, the flavors can get muddled and everything added to a braise tends towards brown³².

Fry

It's like boiling but with oil! Take some oil, heat it up, and then drop food in. Since the "boiling" point of oil is higher than water³³, any food laden with water will see its water boil off and keep the oil at bay. The pressure of the steam will keep the oil from soaking into the food provided that your oil is hot enough. It gets a bad rap but can make some really tasty foods.

You can fry with a quarter inch of oil in the bottom of a pan or you can submerge food in oil to deep fry. Each has its purpose, but each will rapidly create a temperature gradient within the food that is so severe that the outside of the food will crisp up and lose all its water while the inside will remain moist

³¹I talk about this later in the super maturely titled "Oven Lovin'" section.

³²I'm sure you're thinking to yourself "Did the muffin just go an entire section without a footnote?" Yeah, here's a section without a footnote.

³³Oil starts to smoke and then burst into flames in the 500's.

while it is buffered by the huge amount of energy it takes to boil a gram of water.

I like frying all kinds of things but my favorites tend to veer towards sauteing with too much oil. At what point does frying a potato latke blend into sauteing hash-browns? The world may never know.

For deep frying, you generally want a heavy metal pot, a fry thermometer to monitor the oil temperature, a spider or tongs for retrieving food, and an air-tight lid or fire extinguisher for putting out fires. Trucks run on diesel and that isn't that far off chemically from fry oil, so keep your kitchen from burning down with proper safety precautions and never dump water on a burning oil fire. For regular frying, I like to use my cast iron skillet and some tongs or a spatula to flip food so I can fry one side at a time.

Frying is great because of how it browns and cooks food, but has health stigmas against it. I'm told that there isn't any food that you can't fry and I would believe it, but health conscious folks have attached such a health stigma to fried foods that using it every day would seem to put you in XXXXL sweat pants.

I still fry my zucchini though. Recipe here.

Grill

The darling of suburban dads³⁴ everywhere. A grill uses convection and infrared heat to heat the surface of the food to a high temperature while tapping into the primitive connection to fire that we all once had. You can make an entire meal on the grill and I'll devote a month later on in the year to this method of cooking since I like it so much. If you have a cast iron pan, you can also saute on the grill.

Videos

Remember, there is a wealth of information out there on the internet that talks about these methods far more in depth. I am not the end-all be-all authority on cooking and if these videos have a differing opinion or contradict what I have to say, figure out for yourself who is correct and use that to learn.

Martha Stewart³⁵ talks about her essential pots and pans: <http://www.marthastewart.com/915708/choosing-right-pots-and-pans-your-kitchen>

If you are a visual learner, watch this video on how to choose a cooking method: <https://www.YouTube.com/watch?v=mBT5030XXkY>

Heating is very much a scientific process, so relax and watch some Bill Nye: <https://www.YouTube.com/watch?v=f1eA0ygDP5s>

In case you missed it above: braising vs stewing: <https://www.YouTube.com/watch?v=cVkZnUf1RuM>

³⁴9 out of 10 recommend one.

³⁵We love Martha, rap sheet and all.

Recipes

Schnitzel

Follow this youtube video and make some schnitzel. You can use practically any type of meat as long as it is hammered thin. When you fry, use this as an opportunity to hone your gut's sense of timing. You may overcook the meat, but it is nearly impossible to undercook because if your oil is hot enough, it'll cook in about a minute per side. Because the meat is so thin, if you overcook it, it will get tough but not be obnoxiously so. I find that the oil continues to heat up throughout the process so turn the burner down or else you will end up burning your breading.

Also, you may not end up browning the first few even though the food is cooked and crispy. This is due to the oil being new and fresh. As compounds in the oil and from the food break down, the food will begin to brown easier.

If you want to use a tougher piece of meat³⁶ with more connective tissue (just about any cheap beef and some cuts of pork shoulder), you need to tenderize it when you pound it. For that, I use the spiky side of my meat mallet. The spikes break up the connective tissue and the muscle fiber, making it much less chewy.

More on meat mallets: <https://keepingiteasyandsimple.wordpress.com/2012/05/08/tool-of-the-week-meat-mallet/>

Watch how Alton Brown uses the tool to tenderize meat for chicken fried steak (right at the beginning): <http://www.foodnetwork.com/videos/altons-chicken-fried-steak-01701.html>

Though in a practical sense, if you don't want to buy either of those tools, banging it more would probably do the job for you.

Chili (please improve this recipe for me)³⁷

- 1 Lb hamburger meat
- 1 onion (diced) or 1/4c dried onions (if you don't want to dice)
- 32 ounces tomato juice
- 14 ounce can of tomato sauce
- 14 ounce can of diced tomatoes
- 2 14 ounce cans of kidney beans
- 1 green pepper (chopped) [optional]
- 2 tbsp chili powder

³⁶Or any piece of meat. I totally dropped the ball here because I forgot to talk about tenderizing meat.

³⁷Someone did, it was tasty.

- salt and pepper to taste

In a large stock pot, fry up hamburger and brown the onions (if diced), drain the fat. Add the rest of the canned ingredients, bring to a boil and reduce to a simmer for 1 hour. Salt and pepper to taste.

Chicken parm, breaded shake'n bake style³⁸

Mix together equal parts grated Parmesan cheese (canned sawdust is fine) and Italian bread crumbs. Preheat oven to 350°F and coat chicken breasts in the mix. Using your meat thermometer, when the chicken is cooked to 155°F (about 25 minutes), top with some spaghetti sauce and mozzarella cheese (Fresh or shredded is fine), cook for another 5-10 minutes until cheese is melted and/or has brown spots.

Braise some chicken breasts with whole mushrooms

Brine some chicken breasts in with equal parts soy sauce and olive oil with a bit of garlic for about a half hour. Add some oil to a skillet and brown the chicken and some mushrooms. Add three parts chicken broth and 1 part white wine, bring to a boil. Cover and simmer for for 25 minutes over low heat, add salt and pepper to taste, melt some mozzarella cheese over the chicken before serving.

Steam some vegetables

This is a recipe that involves a little bit of sauce making with steaming. I simplified it a little for you folks.

- 1-1/2 cups cauliflower (fresh or frozen)
- 2 tbsp butter
- 2 teaspoons flour
- 3 tablespoons sour cream
- 2 tablespoons grated Parmesan cheese
- Salt and pepper to taste

Place cauliflower in a steamer basket; place in a small saucepan over 1 in. of water. Bring to a boil; cover and steam for 4-5 minutes or until crisp-tender. Meanwhile, in another small saucepan, melt butter. Stir in flour until smooth. Remove from the heat; stir in the sour cream, Parmesan cheese, salt and pepper. Add cauliflower to the cream sauce. Cook and stir over low heat for 1-2 minutes or until heated through. Yield: 2 servings.

³⁸Someone called this janky. It totally is but I still make it.

Pan fry some salmon

Earlier, in the saute section, I had a video of Gordon Ramsay's salmon, cook that. Make that or you can grill some salmon according to my own recipe:

- 1/2 onion, quartered
 - 2 tbsp ginger, skinned
 - 1/4c soy sauce
 - 1/4c olive oil
 - 2 tbsp butter or olive oil
 - Salmon, 6oz per person up to 6 servings
1. 3 hours before dinner, add onion, ginger, soy sauce, and olive oil to food processor. Blend until pureed.
 2. In an airtight container, cover the salmon with the mixture and store in fridge for 2 and a half hours.
 3. Preheat butter or olive oil in a non-stick skillet over medium heat.
 4. Add the salmon to the skillet, skin side up. Raise heat to medium high and cook for 4 minutes. Flip and cook for 6-8 minutes, skin side down until the fish is flaky and cooked through. Serve.

Conclusion

Hopefully with practice, you will be able to successfully apply heat via a variety of methods to achieve the changes that you want to see in your kitchen.

Wow, this has gone on for a really long time, as always bring your own recipes and don't be afraid to provide feedback to me. If I missed something that you would like to add, go ahead and speak up.

Next month will be shorter³⁹, I hope...

³⁹Spoiler, it's not.

Class 2: Measuring and Ingredients

Introduction

You are what you eat and most animals aren't any exception, even the ones that eat plants⁴⁰. What I mean is that the majority of what I buy at the grocery store ends up being very well dressed water. Some of my grocery list is meats and vegetables and those are more than half water by weight (minimum)⁴¹. The rest of my grocery list is dry ingredients such as flour, beans, rice which become edible when water is added back (and then maybe cooked off again). The primary ingredient that you will cook any meal with is going to be water. Water boils, evaporates, holds flavors and salts, freezes, and absorbs heat. All the proteins, carbohydrates, fats, vitamins, minerals, bone, and other bits that are wrapped around this water is what we call food.

Meats and Fish

Ask any 50's American housewife and she'll tell you that the centerpiece of any meal is going to be a piece of meat. This primal piece of food is made up of water, proteins, muscle fibers, collagen, and bone⁴².

Muscle fiber starts off pretty loose but tightens up when cooking. This is why rare/medium-rare steaks are more tender than well done pieces of meat and overcooked chicken gets tough. Every piece of meat that gets too hot for too long will turn tough.

Why are BBQ and pot-roasts so tender then? It has to do with collagen. This is the stuff that holds everything together. Collagen also dissolves in water when heat is applied. When it dissolves, it turns slippery and a single mass of coherent muscle turns into a loosely associated bundle of individual muscle fibers floating in a sea of sauce and protein. Some meats have more collagen

⁴⁰I only eat awesome.

⁴¹Humans are only about 70% water, if you try to put a fire out by tossing your buddy on it, you will only put 70% of the fire out.

⁴²That same 50's housewife will tell you that it also comes with a healthy dose of love.

than others which is why steaks are best cooked medium and chuck roasts are best cooked all day.

Pork chops, tenderloins, steak cuts, fish, and chicken breasts don't have much in the way of collagen which is why you tend not to see those cuts used for pot-roast⁴³. Quick cooking methods are the measure of the day for these cuts. However, if they are cooked too quick, you'll see gummy white "stuff" leak out of the meat or fish and cook up as if you added egg-whites on the pan. This is water laden with protein being forced out of the meat because it is cooking too fast. When pink liquid seeps out of your meat, that's protein laden water and will turn sauces cloudy (almost like stirring an egg white into it) and some recipes may call for it to be removed from the surface of the meat via washing or patting dry. Other recipes call for salting the meat to draw liquid out, letting it sit, and then applying heat to take advantage of the extra protein on the surface for browning.

Perhaps my favorite bits of meat that you need to worry about are fats. The grade of the steak doesn't have anything to do with how well the cow was treated, if it was in the prime of its life, or if it was grass fed or not. The grade of the meat has to do with the distribution of the intramuscular fat. This is because fat tastes good and having it mingled within the muscle makes things juicier and taste better. The other bit of fat appears to be wrapped around the side of the meat. This also adds flavor, can crisp up, or render out and cause a flareup on the grill. The majority of chicken fat tends to be between the skin and the meat which is why skinless chicken has less calories. When roasting a whole chicken or turkey, you get the benefit of all that fat wrapped around the chicken which helps keep things moist and flavorful.

There are final bits of animal that are still attached to cuts of meat and these tend to be bones, connective tissue, or silver skin, a tough membrane that may need to be removed. Removing these inedible bits requires a bit of knowledge⁴⁴ since you have to know where they are and how to remove them, but butchers throughout history have been doing a good job of removing the undesirable bits from land based cuts of meat. In general, if you feel adventurous, do some research on how to prepare larger, less processed cuts of meat⁴⁵, but if not, trust your butcher. If you prepare fish, you may need to remove the pin bones.

Special note about tough meat - There are many ways to tenderize tough meat, you can cook it out, you can chemically tenderize it with enzymes made

⁴³Pot roast is actually really interesting, modern articles extol the budget friendly virtues of pot roast, but braising has a long culinary tradition in continental Europe. It wasn't until the English got into cow husbandry and made cows suitable for steaks that filet mignon and ny strip took prestige over roasted and braised beef. Most cows raised for cooking in the french tradition live to an age well beyond the point where the USDA would allow beef to be sold in your butcher's section. Prime, select, and choice have an age cut-off, and after that point, it becomes canner, utility, and cutter grade. The french take these "canner" and "utility" grade beef and make really tasty dishes.

⁴⁴I think that some of our neighborhood butchers would agree.

⁴⁵Called Primals, usually you have to special order them or get them from a processor when you drop off a whole animal. The closest thing you might get from a grocery store would be a standing rib roast that you could cut into steaks and a rack of ribs.

from pineapples (no, brining in acid does not soften the meat), or you can mechanically tenderize the meat. Cube steak is meat that has been passed through rollers with a bunch of blades on it. The blades physically break down the connective tissue and make the meat softer. You can do the same with a meat mallet with spikes on it.

Mushrooms

Special mention for mushrooms here. Since the fungi are halfway between meats and vegetables in my book⁴⁶, I'll tack on a quick bit about mushrooms here. They are mostly water but can brown. When cooking, treat them as if they were chopped/sliced meat rather than vegetables. Just like red meat, they love high heat/quick browning in a little butter and I have been known to grind up mushrooms into a sort of meatloaf burger. When browning, they release so much water that if you put too many mushrooms in the pan, the water can fill the bottom of the pan and you end up stewing the mushrooms rather than sauteing. My wife loves mushrooms and I probably have 15-20 preparations of mushrooms and they do find their way into most of my dishes. If you want to add mushrooms, think about it as adding a few ounces of protein and 60-75% water. When I roast, I mentally subtract a half cup of water for every 8 ounces of raw mushrooms I add.

Dairy

Near the meats in the grocery store is the dairy section. The dairy section is a showcase of products made from milk, which itself is made up of protein, fat, and water. Dairy products tend to be various preparations where one or more of these components are removed and other seasonings and chemicals are added.

When special enzymes, natural rennet or plant based rennet, are added to milk, the fat and protein begins to separate from the water and consolidate into a solid. When a little bit of the water is removed, you get soft cheeses, when most of the water is removed, you get harder cheeses. Nearly every cheese has some salt added and some are inoculated with beneficial mold to add flavor.

Buttermilk is a byproduct of the butter making process and is more acidic. On an odd note, buttermilk you buy in stores is sour for reasons unrelated to making butter because it is fermented with bacteria that creates lactic acid. In a pinch, you can simulate buttermilk by adding some lemon juice or vinegar to regular milk. Yogurt is milk that has been inoculated with different bacteria and may have some water removed.

Half and Half is a mixture of equal parts milk and cream, and cream itself is the fattier, thicker components of milk that are skimmed off after rising to the surface. When cooking sauces, the recipe may call for cream if the sauce needs a little bit of thickening and fat, or half and half if it requires less.

⁴⁶Mr. Mushroom is always invited to the party because he's such a fun guy.

Butter is the fat component of milk which has been churned out and may have had salt added. When recipes call for unsalted butter, it may be because the recipe writer has a grudge against salt (though they'll say it's about having control over how much salt is added) or because the amount of salt added would be less than the amount of salt present in salted butter. Butter has some protein and some water in it from the milk, but clarified butter has the water boiled off and the protein cooked down and removed⁴⁷.

Fats

Fats are energy dense molecules that don't mix well with water. They have a higher smoke/boil point than water and can carry flavors that water may leave behind. Beginning chefs may be afraid of adding fats and oils once there is a stigma attached to fatty foods. Instead, fat is just another ingredient in a balanced diet and if a little bit makes your vegetables go down easier, it's a win.

Fats can burn but because they do get so much hotter, they are amazing for browning food⁴⁸. Like I mentioned in January's class, a little bit of fat will go a long way in keeping your food from sticking to the pan. If you need to separate out the fat from the liquids, they make bowls and cups that you can use to strain the liquid off from the fat

The main fats that you will encounter are oils, shortening (made from corn), lard (made from pigs) and butter (made from moo-juice⁴⁹). Each has its own different flavor, melting point, smoke point (the point at which it begins to burn), and consistency. Sometimes a recipe may call for a mixture of olive oil and butter, this is to take advantage of the higher smoke point of olive oil and the browning power and flavor of butter and a mixture takes on the best of both.

If your hamburgers have no flavor, you might be buying the 90/95% lean, buy some 80% for a step up in flavor, and have your butcher grind some more for the ultimate in hamburger heaven.

Veggies, Grains, Beans and Lentils, Greens

We humans like to eat. If something doesn't kill us, we will probably find a way to consume it. There is a huge variety of plant based foods. The main difference from meats and fish is how plants store their energy. While animals store energy

⁴⁷Now my preferred method of making clarified butter for sauteing and browning is much quicker, but much less perfect. I put 4 tbsp of regular butter in a microwave safe bowl, microwave for 2 minutes, and then I let everything settle for a minute. From there, I scrape off the scum from the top and pour the clarified butter into the pan, leaving the cloudy white water behind. It isn't perfect like other methods, but it does raise the smoke point of the butter so that my house doesn't smell like burning every time I want to brown some pork chops in butter.

⁴⁸Browning begins in the 350-400°F range and that's where the smoke points of most oils begins. Other oils have higher smoke points and are better for browning and frying.

⁴⁹Technical term here.

as fat, plants do so as sugars and carbohydrates. These sugars and carbs are trapped in cell walls that rather than being made of soft lipids are made of rigid cellulose. This is why raw plants are crunchy and cooked plants soften up as the cellulose softens. As plants are cooked, some of their carbohydrates break down into sugars and make the dish taste sweeter. Other chemical reactions happen. We as humans probably consume hundreds of species of plants and this huge diversity means that there is a large amount of variety in the make-up of the plants we eat.

Flour comes from the finely ground grains and is the white powder that we all know and love. Just like every other complex food, flour has a little bit of fat, a little bit of protein, some carbohydrates, and some indigestible bits. The protein⁵⁰ helps it hold together when kneaded into bread, the carbohydrates help thicken sauces and provide volume, and the indigestible bits help you poop (especially whole grain flour). Corn starch also helps you thicken sauces, but both flour and cornstarch can turn lumpy when added to hot liquid. If you want to thicken hot stuff with flour, either make a slurry that cools the liquid down enough so that it doesn't congeal or make a roux (1 tbsp butter + 1 tbsp flour will thicken 1 cup of liquid to gravy consistency).

Beans, legumes, and lentils are great sources of protein and in addition to soy, make up a large portion of most vegetarian's protein intake. In most cases, the beans and lentils need to be hydrated in one way or another. My favorite method usually involves ham.

Greens are the leaves of edible plants that we eat raw or cook in some way. These include mustard greens, kale, and other forms of rabbit food. In general, I am just a little bit scared of greens because if overcooked their sulfur compounds escape into the dish and the kitchen. In order to minimize chances of that, I usually add greens at the end of the cooking process or wilt in a hot pan with some wine, broth, or a sauce. The dark greens can have a bit of a bitter flavor, but bitter can be counteracted with either acids like lime juice, or salt.

Finally we have starches. These are foods like rice, pasta, and potatoes that are almost pure carbohydrate and love being coated in butter or sauce. Because they are so plain, they are a blank canvas that people have used to create recipes for ages.

Liquids (alcohol, acids, broth, etc)

Even though food is mostly water, we still need to add more. It is usually pretty rare for me to add straight water to a dish⁵¹ because water is such a great carrier of flavors. I'll mix some wine with corn starch if I'm going to make a sauce or add broth instead of water when making a gravy. Whenever a dish says to add

⁵⁰Gluten. I deliberately used protein instead of gluten the first time around because all people think is that gluten is something to be avoided, but if you've been eating wonder bread since you were a kid without issue, you probably are fine. Seek medical help if you suspect that gluten is unhealthy for you, but if it's not medically unhealthy for you, it's just another food stuff.

⁵¹The only times I do is when baking or making a soup.

water, take a moment and wonder if you couldn't change the liquid to add some more flavor. Though sometimes water is called for and too much flavor might not be a good thing.

Never underestimate what a little bit of acid can do for a dish. Always be open to a little bit of vinegar, lemon juice, or wine.

Herbs and Spices

Herbs and spices. The dried parts of plants that are aromatic or pungent. They pretty much bring flavor to the dish. Some spices pair well with each other and may typify a cuisine, and some pair well with foods. Pork and rosemary were practically made for each other just as fish and lemon are. There are so many different herbs and spices out there that having and maintaining a fully stocked spice cabinet can feel like a full time job. Try not to overpay for your spices and if you use enough of something, don't feel bad about buying it pre-ground. I'll buy whole nutmeg for use 11 months out of the year and a baggie of ground when Christmas comes around.

When using dry, keep in mind that they are concentrated and intense. Dried garlic powder only gets more intense as it hydrates and if you add some at the beginning of a dish, wait for a bit before seeing if you need to add more. Also, dried herbs are 3x as potent as fresh and use the 3:1 fresh:dry ratio when swapping back and forth.

Salt

Salt. I read an entire book about salt and I still feel like I have much to learn about this ionic compound. When it dissolves in water, it can raise the boiling temperature and lower the freezing temperature, it can intensify sweet (seriously, try forgetting the salt the next time you make cookies), neutralize bitter (try a pinch in black coffee, it'll take the edge off), and neutralize heat (which is why they rim margarita glasses with it, so you can taste the drink over the spicy foods).

When added to water in a 16:1 Water:Salt ratio by volume (tablespoon per cup) and poured over raw meat⁵², a brine can make the cooked meat more flavorful and juicy. I never grill an un-brined chicken breast and I brine 75% of the meat I cook (the rest gets some sort of a dry salt/pepper seasoning).

"Salt and Pepper to taste" is a cop out. The author could have told you precisely how much salt they added to make the recipe, but instead they left the final seasoning as an exercise to the reader. As written, the cook ends up near the end with a recipe that **almost** tasted like dinner and needs somewhere

⁵²I have also since fallen in love with Julia Child's Marinade Seche which involves mixing together 1tsp salt, 1/8 tsp pepper, 1/4 tsp thyme or sage, 1/8tsp ground bay leaf (I find it's easier to grind in with the kosher salt), a pinch of allspice, and a clove of garlic mashed in. Smash the entire thing in your mortar and pestle and rub it on the meat, let sit for a few hours and then scrape off.

between 1/4tsp and 1Tbsp of salt to finish it off. Pepper is pretty intense and also very subjective, by adding it to taste, you are preventing the dish from getting too peppery.

Garlic

Garlic gets its own bullet because, like mushrooms, it one of my wife's favorite things (like the bias here?). We keep a jar of the minced stuff for quick dishes but I will peel whole garlic when I'm feeling a little bit more ambitious. Nobody likes peeling garlic but the paper is unpleasant to eat, so I will take a clove and squeeze it between my thumb and forefinger until I hear a pop which means that the paper has broken and I can peel it. You can also crush cloves underneath a pan or can and peel that way. The more cutting/processing/grinding you do to garlic, the more intense it gets. When cooked, it can either go really bad (burned and bitter), or really good (roasted and sweet). I'll post a recipe for 40 cloves garlic chicken so that you can see how mild and sweet the pungent rose can get.

Measuring

"The dose makes the poison" - it is just as important to be aware of how much you are adding as it is what you are adding.

When measuring ingredients, you can measure by weight, volume, count, or by intuition/experience. Just like a Pianist doesn't go on stage to perform jazz improv until they have their scales and theory down, I recommend that you measure ingredients rather than eyeball right away. This is so that you can make the same dish as good again tomorrow. Be open to all methods since different folks prefer different methods. Try not to disparage or be disparaged by people who measure differently from you (I'm looking at you measure-by-weight advocates⁵³). My general rule of thumb is that if my stuff comes pre-measured, like cans of broth, I'll measure using that, or if I need to measure out a portion myself, I'll do it by volume. But that's not the only way.

Weight

With scales come precision. You can know down to the tenth of an ounce exactly how much of something you are about to eat. Some baking recipes do call for this level of precision. If you do get a scale, make sure that it is digital and that you can tare it to zero so that you're not weighing the container, only the ingredient. I skip the scale when a recipe doesn't require perfect precision.

⁵³Seriously, get your scale fetish out of here, billions of people around the world measure ingredients without scales and their food tastes just fine. You have an ax to grind, grind it elsewhere.

Volume

Volumetric measurement came about because people would measure ingredients with what they had. For example, a teaspoon was made to hold as much tea as it took to make a standard cup of tea. Cooks found that these measures could be shared with their friends to communicate recipes. I measure by volume because it tends to be quicker and easier and the trade-off of not having to measure in multiple steps.

Hopefully, you should have a complete volumetric measuring set by now with a bunch of individual cups and measuring spoons, if not, they run about \$3-\$5 for a plastic set⁵⁴.

Also, in the US, a tbsp is 3 tsp or 15mL and an AUS tbsp is 4tbsp or 20mL. Keep that in mind while converting recipes around regions.

Count

This is pretty self-explanatory, “Add 2 eggs” or “1 chicken breast per person”⁵⁵. It is more important to know what goes into 1 of something. For example, if you know how many tablespoons or ounces an average egg is, if you divide a recipe below “1 egg” you may need to subtract other liquids by the amount that a whole egg adds. Just like being able to estimate the amount of water in mushrooms, knowing roughly how much stuff something is made of can aid in substitutions, additions, and free-styling.

Intuition/by Eye

After you get into the rhythm of measuring foods, you can start using your fingers, hands, and eyes to measure. If you want to practice this skill, either try to measure a quarter of a teaspoon of salt with your fingers and check it against a spoon measure, or measure with a measuring spoon and pour it into the palm of your hand so you get used to what a measure of spices/herbs looks like⁵⁶. Unfortunately, cooking by eye is easy to do once and very hard to do repeatedly, just ask anybody who tried to get “Grandma’s Special Recipe” from the source.

Flavor Balance

Did you know that just like certain flavors can build upon each other, different flavors can counteract one another? Over the years, I have built a model in my head that I can use to correct dishes that are going off track. Here’s my little cheat sheet, it’s not a perfect model but it helps in a pinch.

⁵⁴I also keep a metal set for dry ingredients

⁵⁵By the way, if you are just beginning to cook with your kids, try to find counting heavy recipes so they can help “measure” with you

⁵⁶Most of the time, I measure salt this way. Remember what I said about “season to taste” above? That’s because most recipe writers also measure salt by eye.

Fill in the blank time: “Help! My dish is too ___!”

- **Bitter:** A dish can become bitter if you add either ingredients that are basic, like baking soda, or have bitter compounds in them, such as dark green vegetables and greens. Some people can pick up on the bitterness of broccoli and brussels sprouts and will avoid those foods for that reason. Bitterness can be countered either with acids, such as lime/lemon juice, or by salt. Seriously, next time you eat a grapefruit, rather than a spoonful of sugar, try it with a bit of salt⁵⁷.
- **Sour:** Food can get too sour if you add too much acid. Rather than adding bitter bases to counter, you have four options. You can turn lemons into lemonade with some sugar since sweet will overpower the sour. You can add salt if you added wine with too much tannins. You can dilute it with some stock (which also adds salt), or you can wait for it to cook out. Some acids will cook out over time.
- **Salty:** Salt counters everything. If a dish is too salty, the only course of action in my book is to dilute it. This can be done by preparing a less-salty gravy to complement an over salted meat, converting a sauce into a double batch, or adding potatoes which absorb the salt and dilute it within themselves without adding liquid. I do not subscribe to adding sugar to dishes that are too salty, but if it works in your house, keep doing it. *
Sweet: If a dish is too sweet, depending on what you are going for, some acid or salt may be in order. A little bit of salt will intensify sweetness, but a bit more will bring it over to the savory side.
- **Bland:** If your dish is too bland, it is probably missing some salt. If it is salty but otherwise unflavored, try adding some complementary herbs and spices to add additional layers of flavor. Though the real secret ingredients to getting big restaurant flavors in your kitchen are shallots, fat, salt, and MSG. The shallot is a cousin of the onion which has a combination of onion and garlic flavor and punches up just about every dish it's in, try marinating some meat with olive oil, minced garlic clove, minced shallot, and a pinch of salt before you grill it. I've covered fat and salt, but MSG is actually not as dangerous as it seems. Tomatoes and mushrooms have glutamate and you never got the placebo effect from those foods. My favorite form of it is Sazon and I use it to punch up my meats and sauces.

Recipes and Videos-

Videos

- Here's a video on how to use your measuring cups and spoons: https://www.YouTube.com/watch?v=0v-ulU_mi7o

⁵⁷You can add sugar after.

- Have you brined your meat today? Do it, you'll thank me later: <http://allrecipes.com/video/4498/simple-chicken-brine/>
- Make your own spice blend. To my knowledge, there are no wild curry plants, pumpkin spice doesn't actually contain pumpkin, and if you take a chile and grind it you won't get chili powder. These bottled wonders are actually spice blends that most people in the world make themselves. As you make a spice blend, taste each one as it goes in and see if you can't pick it out in the final blend. A good place to start is a BBQ rub: <https://www.YouTube.com/watch?v=9wok8umphBo> You can apply to a meat with a lot of collagen and cook all day in the oven.
- Here is an old informational video on where the various cuts come from. Remember, the less work a piece of meat does, the more tender it will be: <https://youtu.be/Mw3NTrtMDko?t=381> or here if you only want the grocery store cuts: <https://youtu.be/Mw3NTrtMDko?t=720>
- Want to get into cooking greens? Clean them first and pull and use as needed, you'll use them more often: <http://www.foodnetwork.com/videos/clean-those-greens-98495.html> I'll probably reference this for next month's knife skills lesson as well.

Recipes

Spaghetti Sauce

Have you ever wondered what "Salt to taste" really means? Do this at least once to understand the power that salt can have over a dish.

This recipe will teach you how to make my favorite type of spaghetti sauce. Pick up a 28 oz can of Crushed Tomatoes and be sure to check the ingredients so that the only thing in there is "Tomatoes" or "Vine ripened Tomatoes" or the like, no salt, no nothing. The kind I like has a yellow label.

In a sauce pan, add 1 Tbsp olive oil, 1 tsp dried basil, 2 tsp dried onion flakes, and your can of crushed tomatoes. Bring to a boil and reduce to a bare simmer (otherwise your stove will be covered in sauce).

Add salt $\frac{1}{2}$ tsp at a time and taste it after stirring each time. It'll start off acidic and raw, and each $\frac{1}{2}$ tsp will transform the flavor a little bit, starting by making it taste less sour and a bit sweet. It's at this point that I put it on pizza. If you add a bit more salt, the sweetness will fade and the sauce will taste a bit more like something that you actually want to put on pasta. It doesn't really taste salty at this point, but it's *almost there*. My sweet spot hovers around 2 tsp, give or take based on how I'm feeling, but sometimes it may take 3-4 depending on how ripe the canned tomatoes were.

Simmer for a half hour total, stirring often.

You'll never go back to premade after finding the salt balance you like. If you are so inclined to add other stuff, wait until you've made this sauce once and then start adding garlic and oregano and sugar and all the other stuff people add to see what changes they make.

40 cloves chicken

This is one of my favorite chicken recipes, Alton Brown uses a whole chicken that has been broken apart. You can use bone-in chicken thighs if you don't want to break apart an entire chicken. There's a "Watch this video" link on the recipe page and I highly recommend it. This recipe is my template for roasting chicken. Sometimes, I'll add potatoes and mushrooms, reduce the garlic and add red wine and bacon, or any number of preparations that I feel like: <http://www.foodnetwork.com/recipes/alton-brown/40-cloves-and-a-chicken-recipe.html#lightbox-recipe-video>

Portobello mushroom burgers

Mushrooms love being treated like meat, if you really want to change it up, you can make extra marinade and do chicken breasts in it as well (different dishes though). Salt and pepper to taste pops up here again. Balsamic vinegar is primarily sweet and sour since it's vinegar with a healthy dose of sugars. When adding salt, try to make the marinade switch from being sour to being a sweet/savory marinade.

<https://www.YouTube.com/watch?v=kEpewJAwVm8>

Recipe here: <http://allrecipes.com/recipe/14497/portobello-mushroom-burgers/>

No-Knead bread

Water, Salt, Flour, Yeast and Time. This is my favorite type of bread to make but it does take some anticipation. I'll often put it together before going to bed so that it's ready for dinner the next day, but the result is definitely worth the preparation.

Watch this for technique: <https://www.YouTube.com/watch?v=13Ah9ES2yTU>

Here's the recipe: <http://www.kingarthurfLOUR.com/recipes/no-knead-crusty-white-bread-recipe>

Biscuits

Oh good golly biscuits... I took all of November and dedicated it to learning how to make the perfect biscuit. Here's my recipe:

- 2 1/2c All Purpose Flour + extra for dusting
- 2 tbsp sugar
- 1 tsp salt
- 2 1/2 tsp baking powder
- 1/2c Chilled fat (Butter, shortening, lard, etc)
- 1/4c water
- 1c Milk

- 3tbsp butter
1. Stir together flour, sugar, salt, and baking powder. Cut the fat into cubes and then cut it into the dry mixture, leaving bits of fat roughly the size of a pea in the flour.
 2. Stir in the water, then 1/2c of milk, then the final 1/2c of milk being careful to not over work the dough while incorporating all of the dry ingredients.
 3. Turn dough out onto a dusted work surface and knead 10 times, folding the dough over onto itself before dusting with a pinch more flour.
 4. Cut the dough into biscuits and grease the bottom of the pan with 1 tbsp of melted butter. Place the biscuits into the pan 1/8" apart so they grow up and not out.
 5. Preheat oven to 400° and bake for 18-22 minutes, turning the pan halfway. Biscuits are done when their internal temperature reads 195-200° 6. Drizzle the top of the biscuits with the remaining 2tbsp of melted butter.

If you find yourself hungering for more of my written word, I wrote entirely too much about biscuits on my blog and made a gif recipe.

Pot Roast!

This video illustrates so much, I am super tempted to put it up in the videos section, but I want you to try pot roast.

Remember the government video section where they talked about what cuts of the cow make a fine roast? No? Well here's a meat guide. Otherwise, Martha thinks they make a fine roast. The cut of meat makes a huge difference in the outcome. A blade cut roast will come out fatty, a bottom round has next to no fat or collagen and will end up stringy unless you cut it perfectly, and other cuts will have different outcomes.

Notice how she pats the meat dry before browning? Also, time and time again, when browning meat, people talk about how the meat sticks until it releases. I call that the "faith" method because while it's sticking, I am convinced that it is going to stick forever, but if you pry it up early, the browning stays attached to the pan. Have faith in your oil and chemistry. <https://www.YouTube.com/watch?v=4US87WBAGkk>

She doesn't specify the herbs, but if I had to eyeball it for you, I would say 1/2 tsp pepper corns, 2-3 sprigs thyme (or 1tsp dry), 1 bay leaf.

She coats the herbs and veggies in 1 Tbsp flour. The flour will soak up the oil. Another tip is that after you thicken the gravy and add the vinegar, taste it. If it doesn't taste good, cooking it all day won't make it magically get a flavor you like. Correct the way it tastes before you add the meat back in and cook it all day.

Potato Soup

In the frozen north, soup is the order of the day. I like this recipe because it takes what is essentially mashed potatoes, a starchy side dish, and turns it into a fantastic soup. If you were to reduce the broth, this would be a semi-solid side dish, but as written, it's a soup appetizer.

- 4 cups chicken broth
- 2lb bag southern style hash browns or cubed tomatoes
- 1tsp garlic
- 2 tbsp dried onion flakes or 1/4c chopped onion
- 2 cups half and half
- salt and pepper to taste

Cooked bacon, green onions, and sharp cheddar to garnish

1. Add chicken broth, potatoes, garlic, and onion to crock pot, Cover and cook on low for 8 hours.
2. Stir in half and half. Cover and cook on high setting 20 more minutes, or until mixture is thoroughly heated. Salt and pepper to taste.
3. Ladle into bowls and garnish with bacon, cheese and green onion

Conclusion

So hopefully I have removed a little bit of the mystery about what you're putting into the pot. Get measuring and cooking!

This went on really long... I think I need an editor⁵⁸ or something.

⁵⁸Still do, but it's too late now!

Class 3: Cutting and Slicing

I was kind of cautious about writing this class because I've never really practiced sexy knife skills. My opinion is that what comes out of the pot is more important than looking good while you're prepping stuff for the pot. Sure chefs have all kinds of fancy moves, but I find that the fanciest move is the one that keeps you from slicing your fingers. My skills aren't the fastest, but they get the job done and I still have all of my fingers and toes.

There was a supplementary discussion for this class, it's probably archived by now, but you can take a look:https://www.reddit.com/r/cookingcollaboration/comments/47mash/knife_buying_thread_post_your_favorites_and_ask/

Monthly Topic - Knife Skills

I don't consider myself to be an expert in the act of cutting⁵⁹, and there are plenty who are willing to talk about it. I'm just some dude who likes to cook and write in equal measure. Cutting in a safe and controlled manner is what I aim for every night and what every beginning chef might want to aim for as well. Confidence, speed, and precision will come with practicing basic cutting methods over time.

Anybody can teach themselves how to use their knives nowadays. You could have just gone to YouTube to find videos on "knife safety" and "how to cut" and the like by experts. You might have found this excellent video by Jamie Oliver to teach you everything that you need to get started with knives, and that's all well and good. However, very few of those videos tell you why you're doing what you're doing, only how. Cooking is a planned activity, everything we do happens for a reason⁶⁰, and cutting is no exception. A theme that I've tried to develop in these classes is to get you thinking about why something happens in the kitchen. Hopefully what you get out of this month's lesson is an appreciation for why you are cutting the way you are.

I'll talk a little bit about knife basics and knife safety because it's the responsible thing to do, but I'll focus on why you want to reduce food to certain shapes and then how to use your cutting implements to get those shapes into the pot. Knowing why you are cubing potatoes vs slicing them is just as important

⁵⁹So why am I writing this? I don't know, but it seemed important to folks.

⁶⁰Sometimes the reason bad stuff happens is because you don't plan enough.

as being able to do so, and more important than doing so quickly. To borrow a quote from the gun world, “Slow is smooth. Smooth is fast.”⁶¹

Knife Basics

Take a quick look at this diagram to familiarize yourself with the knife. There’s more to it than “grip” and “pointy end”⁶², but not much more. As far as knife safety goes, the point and the cutting edge are dangerous. A falling knife has no handle (which means don’t try to catch it mid-air), a dull knife is more likely to slip and cut you, and the primary goal when using knives is to keep the cutting edge going into the food and not your fingertips.

If you don’t want to replace your counters or knives yearly, always use a cutting board⁶³. Plastic or wood are best, and never use a cutting board that has a diagonal length which is shorter than the knife you’re using. I have a tiny cutting board that came in a 3-pack that I use as a trivet and nothing else.

Store your knives in a knife block or on magnetic strips on the wall. The magnetic strips look sexy and keep your knives on display, but may magnetize your knives which attracts metal fragments from sharpening that can get deposited into your food. Be sure to wipe down your knives often and do a quick inspection to ensure that you aren’t eating bits of metal. A knife block with vertical slots can dull knives overtime if the blade is constantly rubbing against the wood. Horizontal slots are better but take care when loading to prevent wear of the cutting edge or point. Don’t store your sharp, pointy objects loose in a drawer for the same reason you don’t put knives in the dishwasher: They’ll bang into each other which nicks the blades as well as endangering your fingers because having naked edges hanging around is a hazard.

Every time you get your blade out or put it away, hone it with a knife steel. A honing steel, a honing tool, or a knife steel (as they are called) is used to push the edge back into alignment and keeps it from folding over. That will keep you from having to sharpen your knives daily and I know people who use a sharpener when they would be better served by using a knife steel. I was terrible at explaining that, understanding why you need to hone your knife and not sharpen it daily is a visual thing. A video is worth a thousand reddit posts: <https://www.YouTube.com/watch?v=1RUYAgrsoLw>

When he pushes the edge out of alignment, that’s just the beginning stages. The edge is still sharp, but eventually it may be pushed so far out of alignment that it begins to fold over to the side. When that happens, the edge no longer comes into contact with the food and you’re cutting with the rounded flat rather than the edge. That is when you need to sharpen it (the other time is if there is no edge to push back into line).

⁶¹The gun world has since asked for this quote and the borrowed leaf blower back.

⁶²Don’t forget the slicey bit!

⁶³Granite beats knife, knife beats formica, but that’s a game that is best not played.

Knife Selection

“Everyone” says that you only need 3 knives to get started: A big chef’s knife, a serrated bread knife, and a smaller paring knife. I swap out the paring knife for a boning knife because I use that to prepare meats and it is still small enough that I can use it for peeling or slicing apples. In addition to knives, try to have some other cutting tools in your kitchen: A peeler, a cheese grater, and some kitchen shears⁶⁴. You can get away without those, but they make life so much easier.

The big chef’s knife is what you use to chop vegetables. It’s big and curved so that a part of the knife can touch the cutting board at all times for extra stability. You remember those paper cutters in middle school where the blade was anchored to the cutting board? Very stable. For beginners, a chef’s knife can be used like that except with an additional back and forth motion to take advantage of a knife’s ability to slice. You can push straight down, guillotine style, but that is harder on the edge. My every day cutting motion reminds me of a locomotive wheel where the tip of the blade is touching the cutting board for stability but I’m moving my hand in a circular motion (up and down and back and forth) to take advantage of the slicing motion. Thanks to that motion (and curling my finger tips back so my knuckles rub against the side of the blade) It’s been years since I’ve cut myself with a knife.

Use your chef’s knife for bulk processing. When you have a lot of something that you want to reduce in size quickly, break it out, get into a safe rhythm, and power through it. When I have one-off tasks that require additional delicacy, I use the boning knife to break apart chickens, trim pieces of meat, prepare fruits and vegetables, stab pieces of meat to stuff with flavor, and generally perform any action that goes beyond a basic chop or slice. The bread knife cuts soft things like bread very well, but is also good for slicing tomatoes, which have a tough skin and soft insides.

To supplement the knives in their block, home cooks can invest in a peeler, kitchen shears, and a box cheese grater because they do jobs that knives can do, but they do some things better and faster. Alton Brown says “I never cut with a knife what I can cut with scissors. After all, I’ve been using those things since kindergarten.” The peeler is for peeling vegetables and tomatoes, and according to the greatest salesman who ever lived, so much more⁶⁵. I use my box cheese grater for shredding potatoes into hash browns, slicing vegetables mandoline style, grinding nutmeg, zesting citrus, and grating garlic. Occasionally I’ll grate cheese with it.

When it comes to knives, buy individually and buy quality without breaking the budget. What good is a knife if you can’t afford anything to cut? I know people who love all kinds of expensive brands, and those knives are nice. I always figured that I would get a “nice” set after my mid-level knives wore out, but 10 years later, they’re still cutting. Any knife that you can keep sharp is a good knife; the more expensive ones are just easier to keep sharp. Serrated

⁶⁴I affectionately call mine my “chicken scissors”.

⁶⁵If you are ever tempted to get these slicers, beware that they do rust, so keep them dry.

knives stay “sharper” for longer, which is a good thing since they are a pain to hone and sharpen.

I will say that people here on reddit will pledge undying devotion to certain knife brands and wouldn’t spit on others if they were on fire, but try to see through that. Find some good knives in your budget and treat them well. If they don’t treat you well in return, find a new knife. The brand that treats me well more often than not is Chicago cutlery and they’re always on sale somewhere, so they’re usually in my budget. Are there better knives? Yes, but the favorite knives in my block still came from them.

One knife series that is well received by the community is the Fibrox series made by Victorinox. They have everything “wrong” going on: stamped blade, molded handle, sub \$100 price (try not to pay above \$30 for the chef’s knife), but by all reports, it is a balanced, quick knife that is easy to sharpen and keep sharp.

Again, if you would like to discuss knife buying, please do so in the Knife Buying companion thread: https://www.reddit.com/r/cookingcollaboration/comments/47mash/knife_buying_thread_post_your_favorites_and_ask/

Desired Outcomes for Knife Usage

You can’t eat your knives, so what are they doing in the kitchen?⁶⁶

There are many reasons to use knives, but the simplest is that because adding a whole avocado, skin and all, to guacamole can be a real drag. We do eat some foods whole, but the majority of foods are easier to cook and eat when cut into little pieces, broken apart, or at least skinned. Cutting foods into little pieces makes them easier to handle, increases surface area, and may make internal juices and flavors easier to access.

Slices

Potato chips, caprese salad, cold cuts, hamburger pickles, bacon, grilled eggplant, brined cucumbers, onion rings. All of these start with a slice. A slice has several benefits that are appropriate for different recipes. Sometimes it can be a visual thing (and yes, you can actually make it like that⁶⁷. Other times, you slice thin because of form factor, like for sandwiches. I find that slices are great because they cook fast on the grill and in a frying pan.

The very shape of a slice means that the piece of food has large, flat surface and not much “stuff” between the sides which allows it to absorb heat and come up to temperature faster, absorb more flavor from brines and sauces (which comes in handy for au gratin potatoes), come up to a uniformly high temperature with no internal gradient (crispy bacon), and can be stacked into layers easier (which helps with eggplant parmesan).

⁶⁶Mine just sit there until I take them out and use them.

⁶⁷For the record, many many people are now ordering that dish and are disappointed when they get cubed bits of veggies, not artistic slices.

We slice everything because a thin slice of roast beef or flank steak is easier to chew than a larger cube of tougher meat, because a thin slice of cheese lays on a cracker and can minimize the amount of cheese flavor of more intense cheese⁶⁸, and because it is really hard to make a grilled cheese sandwich with an entire loaf of wonder bread. The motion to get slices is perhaps the most basic cutting motion that we're familiar with (except for stabbing, but I'm not judging you, Stabby McStabberson) and is the first step to more complex food shapes.

Slices come in big and small. You can have thick half inch slices of vegetables that go on the grill, two inch thick porterhouses, or paper thin onion slices that go on pizza and salads. I'd even argue that chiffonading basil and other leafy greens⁶⁹ is a form of slicing since you stack the leaves, roll into a tube, and then slice thinly to get ribbons of greens. This is a fantastic way to liven up a fresh tomato dish and my favorite summer salad is all sliced: Sliced tomatoes, thinly sliced white onion, sliced fresh mozzarella cheese, and chiffonade cut basil, with olive oil and balsamic vinegar drizzled over top. Restaurants will charge you a crazy price for a Caprese Salad, make it at home when tomatoes are in season for a fantastic summer dish.

I will slice with my chef's knife or with a mandoline. I haven't yet mentioned the mandoline, destroyer of fingertips, but that reminds me (like seasoning, a little bit of knife-safety sprinkled throughout leads to better results): When using a mandoline⁷⁰, invest in some no cut gloves. That particular pair has saved my fingertip at least once while using the mandolin. I put on the glove on the hand that will be potentially exposed to the blade and then put on a food-safe vinyl glove to keep the no-cut glove from getting wet/dirty. It seems like I read weekly about someone slicing a fingertip off on facebook and until you are practiced with a knife (and the claw grip), invest in a pair and use them while cutting because your fingertips are worth more than twelve bucks. I don't use the gloves all the time anymore, but I still get them out at least once a week.

Strips

Take your slices of food and slice them again, and you'll end up with long, thin strips. Sometimes I will julienne garlic for baked camembert called "cut into match sticks", or julienne potatoes for french fries.

Cut everything into strips, toss into a really freaking hot pan, and then cook quickly over a really high heat and you have yourself a stir fry! The strips are ideal because the food cooks quickly. They are a perfect compromise between having tiny pieces that cook quickly and larger pieces that you can grab with a fork or some chopsticks.

Again, you can use a chef's knife for this, or some mandolins have a toothy blade that will julienne for you. When making hash browns, I will use a cheese

⁶⁸I will refuse to acknowledge the inferred joke here about cutting the cheese

⁶⁹I have yet to get into an argument about chiffonade though, I can be so dramatic...

⁷⁰No e, it's a musical instrument, add the e and it's a kitchen instrument

grater to shred my potatoes into strips, and while they aren't perfect little rectangular prisms, they do cook up nicely. (Editor's Note: Look at this picture⁷¹ of Nephi Grigg, co-founder of Oreida)

Cubes

I saw someone eat a whole potato on a stick once, it was horrible⁷². So now, unless I serve baked potatoes, I cut my potatoes into bite sized cubes. Cubed potatoes cook faster, absorb more flavor, and are easier to eat. Some people think that cubed food also can be beautiful. If you take your julienned food and cut it at a right angle again, you'll end up with cubes. Geometry and cooking, together at last!

I cut my stew meat into cubes because it has more surface area to brown which adds more of that tasty brown flavor to the dish. The meat also cooks faster. In my pressure cooker, a 4lb roast would take an hour and a half, but cut into stew meat, it takes a half hour.

Cooks cut food into little pieces for many reasons. Diced potatoes fit on the fork, absorb flavor better and they cook faster. Minced garlic is more intense because more cell walls are crushed. Did you try that 40 clove chicken last month? If you didn't mince your garlic, it shouldn't have been overpowering. I find that 2-3 minced cloves of garlic get you up to the same level of intensity as can be found in the 40 clove chicken, but without the same sweetness and roasted-garlic flavor.

I'm also going to stick chopped onions in this section. If you subject a potato to cuts along the x, y, and z axis, you would get cubes, but because an onion is emotionally complex with layers and all that⁷³, the cubes separate along those layers and you end up with chopped onions. Note, I don't chop my onions like that video since I slice off the stem and root end, and I'm sure that people think I'm a terrible person for that, but the end result is just as good and I don't cut myself either. I'm not saying that you should cut like I do what you probably want to do is find a way to safely handle your knives and get into a groove that works for you.

Cubes commonly go in roasted dishes, such as roasted potatoes, or in a soup, or braised in a sauce. They have less surface area than slices or strips and benefit most from being surrounded by flavor. When roasting potatoes, it is a good idea to toss in oil (or duck fat, but only if you love magic), seasoning, and salt to ensure the potatoes are flavored throughout. Dishes with cubed meats tend to use a wet cooking method like braising or boiling, and the rare exceptions to this, like kebabs, use cubed meat because of the form factor (having to go on a stick).

Use a chef's knife or a bread knife for cubing, for foods that aren't stable, take an edge off so it lays flat and won't wobble, then cut into slices, turn to

⁷¹This class actually was edited by my sometimes editor: /u/particelse

⁷²The image haunts me to this day. He just found a stick, put a potato on it, and started going to town.

⁷³What about a parfait? Everyone likes parfait!

MONTHLY TOPIC - KNIFE SKILLS CLASS 3: CUTTING AND SLICING

cut into strips, and then finally turn and cut into cubes. When you make large cubes, that's dicing (or even cutting into cubes, like in beef bourguignon). When you make tiny cubes, like of garlic, that's minced garlic. You don't have to be quite so precise when mincing.

Remember, minced garlic cooks and burns really fast. Never let your garlic sit alone in a pan over high heat for longer than a minute. Burned garlic is bitter garlic.

A Paste

Keep dicing and mincing and crushing and blending, and when you have reduced the food to tiny little mushy particles, it becomes a paste. We deal with pastes all the time, tomato paste, miso paste, garlic paste, wet rubs... Ok, so you may not deal with pastes all the time but you're missing out on flavor if you don't. Vegetables that are ground into paste have most of their cell walls broken and all of their flavor will be available for immediate application.

You can add pastes to sauces, rub a meat in it as a marinade, or add it to soups. You can pull it out of a jar or you can add your own liquids and solids to a mortar and pestle, blender, or crush the ever-loving snot out of some garlic. My ginger salmon recipe from the first class was marinated in a paste of onions, garlic, olive oil, and soy sauce. The paste makes the most of the onion flavor available to soak into the meat and if grilled, can crisp up into a nice coating.

Pastes are great ways to add concentrated flavor since most are made by removing water from ground or pureed ingredients. Better than Bouillon is an entire line of pastes made from rendered meat drippings.

A flat, wide piece of meat

Sometimes, you want a chicken breast or pork chop to cook faster or maybe want to line it with goodies and then roll it back up. This is known as a butterfly cut and is a little more advanced. I like this cut because it lets me stuff cuts of meat. A little bit of sauce, cheese, and spinach rolled into a butterflied chicken breast can make for a stunning presentation and increases the surface area of the chicken that is exposed to the sauce.

Chicken, only in pieces

I don't know how much chicken costs where you live, but everywhere that I have been, a whole chicken costs less than chicken breasts or chicken thighs or wings per pound. Breaking apart a whole chicken is a situation where the whole is surpassed by the sum of its parts. Sure, boneless skinless chicken breasts have less fat, but boneless skin-on breasts grill up juicier and brown better. It's also cheaper, for the usual cost of 3-4 chicken breasts, you get 2 chicken breasts (super deal there, but wait! There's more!) 2 drumsticks, 2 thighs, 2 wing flats, and 2 drumettes, all coated in tasty skin and chicken fat which is a little bit of oil and a hot pan away from golden brown deliciousness. That's not all! For

the cost of purchase and shipping and handling, I'll toss in skeleton that can be frozen and then turned into stock at later point!

I learned how to take apart a chicken from Alton Brown's "Fry hard II" episode. Watch that last video twice, or more. The first time I did it, I actually paused and unpaused and rewatched each step before I did it. He used a dinosaur skeleton to illustrate what was going on. This is why I love my boning knife. It has a long straight edge and a curve at the tip that use to slice the cartilage holding a bird together.

This is very much a visual learning thing that takes practice. I can do it in about 5 minutes and it works on ducks, turkeys, and Cornish game hens.

If you don't want to completely debone a chicken, you may want to remove the spine and spatchcock it. This is amazing for grilling. Break out the kitchen shears⁷⁴ and remove the spine and keel bone. Stuff the skin with herbs and butter, give the back a rub with a good seasoning, and toss on the grill. Super tender. I'll run kebab skewers though to make sure it lays flat.

Something that is roughly the same shape as the whole, but slightly reduced

This section has a really fancy headline for saying "Peel that potato!" You can use a paring knife for this and do a motion that still gives me the screamin' heebie jeebies: Gripping a knife in your fingers and bringing the cutting edge towards your thumb. If that appeals to you and is something that you want to do with your life, god bless.

I have an apple peeler where if I turn the crank enough, I end up with peeled apple. I own several hand peelers and prefer ones where the blade is horizontal and anchored at both ends.

You can also peel tomatoes and select other fruits/veggies by tossing them into a pot of boiling water for a few minutes and then douse them in an ice bath. The amount of time in the water should have only heated up the skin and the layer of cells just under the skin to "cooked" temperature and the ice bath stops the cooking. Because cooked plant cells are softer than raw, the skin will come off easily and what remains underneath would remain raw.

Some of the best peppers I have ever had were peeled in a similar fashion where the outside is exposed to high flame on the grill and the skin either burns off or slides off, leaving the slightly cooked flesh intact.

Peel any fruit or vegetable where the skin is unwanted. Some skins are bitter, or add too much color, or are too tough to eat. Use a peeler on thin skinned fruits and vegetables. When the skin gets too thick and the underlying flesh is too soft, sometimes the pulp needs to be removed from the skin, like when prepping avocados for guacamole. In that case, cut the avocado in half (don't try to cut the pit though) and run a spoon between the good stuff and the skin.

⁷⁴This is where they earn their "Chicken Scissors" nickname

Recipe and Video Section

Videos

Knife Safety Recap: https://www.YouTube.com/watch?v=Ydc_SaQ_eRQ

Knife Steel: <https://www.YouTube.com/watch?v=CzoJtzQV2s8&feature=youtu.be&t=130>

Knife Motions: <https://www.YouTube.com/watch?v=sH8pgoMzVSs>

Jamie Oliver's Knife skills video: <https://www.YouTube.com/watch?v=yJ44SxiemMs>

I linked this video above, but because knife skills are so universal, you can (and should) apply the same technique to many different dishes. Watch this to see how a chef applies the same prep and cooking techniques to a wide variety of dishes (at the end): <https://www.YouTube.com/watch?v=iCMGPRiDXQg>

Recipes

So you want to be like a ninja with the knives, slaying your enemies and potatoes with a single swipe of your super sharp blade? Practice, practice, practice. Feel free to go through the links in the above videos to tease out some recipe videos that are relevant to the techniques and then practice your knife skills with these below.

Julienne: Sweet Potato Fries

For this, aim for consistency in size. This recipe for baked potato fries is great because baked potato fries are great and because if you are inconsistent, the results will show immediately (because it will be a different size) and because the final product will be different. Peel your sweet potatoes, julienne them, soak them in water, coat in corn starch, drizzle with oil and seasoning (no salt though), bake at 425°F for about 30 minutes, toss with salt and enjoy!

Video: https://www.YouTube.com/watch?v=bDqaAd_2a2Y

Slice: Cucumber and Vinegar Salad

In the video, she uses a food processor. Resist the urge to do this and use this as an excuse to hone your knife skills. In my experience these salads are best when the cucumber slices are super thin and flexible.

(from the YouTube description)

- 1 large cucumber, peeled, thinly sliced
- 1 small white onion, thinly sliced
- 1/2 cup cold water
- 1 tbs brown sugar
- 4 tbs white wine vinegar

- 2 tbsp extra virgin olive oil
- freshly chopped chives
- sea salt

Slice the onion and cucumber, combine the water, brown sugar, vinegar, and olive oil. Pour the water over the cucumbers (I like to refrigerate for a few hours) and top with chives. Enjoy!

Video: <https://www.YouTube.com/watch?v=T0tuFBTcckU>

Cutting into Cubes: Puerco Pibil

I mentioned this recipe in the original class 0. I made it as written and it came out sour and bitter. I had to correct by adding caramelized onions to sweeten up the dish and salt to season it properly. Follow this recipe but correct the sauce that you pour over it to taste agreeable to you. If the liquid doesn't taste good going into the oven, it won't taste good coming out.

NSFW Language: <https://www.YouTube.com/watch?v=Vrw5FkLutWk>

Slices 2: Eggplant Rollatini

Yup, practicing knife skills again. Peel and slice your eggplant, chiffonade your basil, grate your mozzarella cheese, this recipe has it all!

- 2 eggplants, ends trimmed, peeled
- 1 container (16 oz.) Cottage Cheese
- 2 cups Shredded Mozzarella Cheese, divided in half
- 1/3 cup dry bread crumbs
- 1/4 cup Parmesan Cheese
- 1/4 cup chopped fresh basil
- 1-1/2 cups Marinara Sauce

Preheat oven to 350°F. Slice the eggplants lengthwise (so you get long shapes and not circles). Place in a glass bowl and cook in the microwave for 5 minutes. Drain. Combine cottage cheese, 1 cup mozz, bread crumbs, parmesan cheese, and basil. Put a dollop of the filling at the fat end of a softened eggplant slice and roll up. Place in a greased casserole dish, seam side down. Repeat many many times. So many times. Roll and place until your entire world becomes eggplant and filling. All you are now is rolling and filling, filling and rolling. The eggplant will help you. It wants you to succeed. It knows how badly you want to cook and will do everything it can to help you. Drizzle rollatini with marinara sauce and cover with cheese. Bake 30-35 minutes or until cheese is brown and bubbly.

Video: <https://www.YouTube.com/watch?v=CP1JWJwiHUw>

Julienne part 2: Baked Camembert

Grab a wheel of Camembert cheese, slice off the top, cut a few cloves of garlic into matchsticks and shove the matchsticks into the Camembert, sprinkle some fresh rosemary onto the cheese and drizzle with olive oil. Cook at 180°C for about 12 hectoseconds. I like to cut french bread into rounds and toast them on a cookie pan while the cheese is baking. Make sure you pull the bread from the oven around 3-5 hectoseconds in or else it will burn. ⁷⁵

Video: <https://www.YouTube.com/watch?v=j-19B3YMNRA>

Dice, chop, and slice: Make an Omelet

When making an omelet, the important part is cooking your filler beforehand. If you expect the egg to cook your raw ham and veggies, you will be sorely dissappointed because an egg is light and fluffy when the filling is raw, or the egg is tough and watery when the filling is done. My personal favorite omelet has diced onions, diced roasted red pepper, sliced mushrooms, and a few bits of diced country ham for flavor. Cook the filling in some olive oil in a nonstick pan and pour the whipped eggs over it, prodding the sides with a spatula until you fold it over on itself. I use pasteurized eggs so it doesn't matter if it's a tiny bit runny on the inside, so how done you like your omelet is a matter of preference.

Video: <https://www.YouTube.com/watch?v=2kop4ocwec>

Conclusion

So hopefully I have cut to the quick and demystified knives⁷⁶. I can't cut like a culinary ninja, but that's not important. What is important is being able to break apart foods into pieces that are an appropriate size for the dish they are about to become a part of.

This ends the section on fundamentals, and now that you know how to chop, measure, and cook your ingredients, we'll move on to combining those skills in focused ways.

Be safe, be smart, be sharp.

⁷⁵This was actually a middle finger to those folks who insisted I include metric measurements. Mr Gift Horse, please open wide.

⁷⁶I'm fairly certain I haven't.

Class 4: One Pot Meals

Getting into the groove of cooking can seem daunting at first. One of the first things that people notice after they finish their home cooked meal is the huge pile of pots and pans that need to be scrubbed. One way to minimize this cleanup is by using one or fewer pans to cook a meal. This month's section is a love letter to meals that are heavy on flavor but light on cleanup.

Monthly Topic - One Pot Meals

Recipes that condense an entire meal's worth of cooking into a single vessel take a bit of planning. The good news is that there are basic formulas that we can use to prepare meals. Once you become familiar with these formulas, you can substitute ingredients and flavors for extra variety.

Basic Theory

$$\frac{(Oil + Browning + \frac{Aromatics}{veggies} * seasoning + Starches + Protein)}{Heat} = GoodFood$$

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The goal when cooking one pot meals is to take a variety of ingredients, add them to a single cooking vessel, and hope that everything is done at roughly the same time. With many, many, many exceptions, the basic one pot formula consists of a sauce or liquid for flavor and to facilitate heat distribution; aromatics for flavor, texture, and color; starch for bulk; and protein because it tastes good.

Let me illustrate the basic formula with one of my wife's favorite quick recipes⁷⁸:

An American style Chinese stir fry will have oyster sauce, soy sauce, and oil, thickened with cornstarch, as a liquid. Cilantro, garlic, ginger, and green onion as seasoning, and aromatics for color and flavor. No starch (well, cornstarch if you count it, but I put that in the sauce component territory. See? Many

⁷⁷Are you jealous of my math skills? Because this formula is completely not math.

⁷⁸This is no longer a favorite for some reason

exceptions.). Shrimp stars as the protein. Add all these in a very specific order to cook for the right times, and you have garlic shrimp.

If you want to brown your protein, you add it to the hot pan first and then remove, or you can select meats that don't need to be browned, like chicken, some cuts of pork, and some seafood/shellfish. Remember back to January's Class? Browning happens in a very hot, oily/dry environment where there isn't much water to cool things off. This means that anything you brown will need to be the only thing in the pan. However, if you put the protein in first, it will be overdone by the time the rest of the components are cooked through. To avoid this, you can brown and remove, or you can skip the browning step in some cases.

So you start off by patting your shrimp dry, tossing it with some cornstarch⁷⁹, browning it in hot oil, and then removing it before it is fully cooked. Browning shrimp means getting some oil very hot in a very hot pan (but not so hot that it starts smoking), placing the peeled shrimp into the oil, and letting it sit until you see brown around the edges before flipping. You see this in all kind of recipes with all kinds of meats, it is very common and the browning does bring flavor to the dish. When you brown food, it actually turns brown, not simply cooked. For shrimp, browning is optional, but it does bring a welcome texture and flavor. If you are afraid of overcooking your shrimp, you can skip the browning step and cook it a little later.

After removing the shrimp, or heating the oil if browning is skipped, turn the heat to medium and add some more oil, green onion, garlic, ginger and saute until it is fragrant. Bringing the aromatics up to heat browns them which wouldn't happen if you later added them with the sauce. Combine some oyster sauce, soy sauce, and cilantro, and quench the aromatics with this sauce mixture. When the liquid is boiling, add the shrimp back into the pan and cook until it is pink and no longer gray on the inside. If you have a small, quick instant read thermometer, "done" for shrimp is 120°F and coincides with the temperature where the inside of the shrimp is no longer clearish gray and bits of it turn pink.

If this description made you hungry, here's the actual recipe.

You can serve over rice or by itself. I know the rice has to be cooked in another pot, but some people get into a rhythm of always having rice on hand. It is an inexpensive way to add bulk to meals and to stretch more expensive ingredients. I will often put a bowl of leftover rice in the microwave and pour some stir fry over that.

So to recap, optionally brown the meat and remove, add aromatics/seasonings, build a sauce, add the meat, and cook it all. This is a common theme and is the first of the cooking formulas that will make your life easy. You may be familiar with pasta+sauce which gives rise to macaroni and cheese, spaghetti with marinara, fettuccine alfredo, baked ravioli, and all sorts of dishes you probably

⁷⁹Someone brought up that adding and removing to another plate kind of negates the "one pot" spirit, my response was that you had to marinate or hold your meat in something before adding it to the pan. Just put the semi-cooked meat back into that holder thingy because it's still raw and will finish cooking when you re-add it. Whatever you tossed the shrimp in, dump out the excess corn starch and return the shrimp to it.

make already, so this month's goal will be to add another formula to your skill set.

Pouch Cooking

([noodles, orzo, couscous, or rice] + [aromatic veggies and seasoning] + [meat or seafood] + [broth and/or wine]) / (Sealed in a foil or parchment pouch and baked in the oven) = Pouch Cooking⁸⁰

Boy Scouts cook with pouch cooking, hobos (who may or may not also be Boy Scouts) make hobo dinner with it, the French cooks cooks en Papillote, and I cook stuff in pouches when I have a bunch of picky guests, want to customize dishes, or want to have next to no cleanup at the end of the night.

Cooking with the pouch is a crazy hybrid method where you seal up food and then place it in the oven. The end result is starches that are boiled and meats and veggies that are steamed, but without the browning that one gets from braising.

I don't know who first thought up pouch cooking, but I do know that the first time I saw it came from Alton Brown. Watch this video attached to this recipe page to see the formula in action.

Here's the amazing thing (and not very much of a coincidence): Even though he has a slightly different structure to his formula, if you take roughly the same ingredients listed in the Garlic Ginger Shrimp Stir Fry above, it could be tuned for pouch cooking and substituted for Alton Brown's shrimp recipe. Likewise, his pouch recipe, if tuned for stir fry, would make an awesome stir fry recipe. This isn't limited to shrimp, either. Not all one pot methods have this transferability, but by changing the heating method and tuning the ingredient ratios, you can adapt one recipe into another once you are familiar with the ingredients and cooking methods.

I have blatantly stolen his chart for your reference from Alton Brown. Run through the columns and pick what you like. If what you want isn't there, there are more resources and references that you can use as shortcuts to spice up your dish.

There are several methods to make pouches from various materials. The prettiest is to cut a heart from parchment, fold it over, and then create a pouch by folding the edges over. You twist the final end over on itself. This is one of those visual things that I could spend pages describing, or you could just watch the video. Another method is to lay out a large sheet of heavy duty aluminum foil, form a bowl around your food, pour the liquid over, and then crease the edges shut over the food. It is possible to crimp foil air-tight which may make your pouch explode in the oven, but I haven't managed to get that party trick to work. I prefer aluminum foil for cooking combination dishes where the ingredients are stacked and I use the parchment to cook single ingredient dishes where everything can lay flat. Also, if you are going to pouch cook on the campfire or on the grill (both are awesome), foil is a must.

⁸⁰I couldn't get this formula to work in math mode

The steps are easy and the pouches can be made ahead of time, as well. Pick your ingredients, build your pouch, and cook until done. A large chicken breast will take longer than a few shrimp, and potatoes will take longer to cook than orzo. Small pieces of meat and potato will cook quicker than larger single pieces thanks to their increased surface area. A meat thermometer that beeps when the meat reaches some internal temperature is a must if you do not know how long to cook for.

When determining liquid amounts, put in enough to cook the starch (3/4C water for every 1/2c rice, for example) plus a little more for steaming. If you don't have an absorbent starch, you can put in enough liquid to flavor and expect the water in the other ingredients to steam the food.

When picking an oven temp, somewhere between 350 and 400 will work because the pool of water will act as a buffer to keep things from burning until it is almost gone.

When it comes to serving, I put each pouch in a large pasta bowl and unfold, most of the bowls don't get dirty or may only need a quick rinse as clean-up if the foil isn't cut.

Stir Fry and One Skillet Meals

(Meat + Browning + Starch + [Flavoring Liquid or Sauce] + Aromatics) / (Hot pan on the stove-top) = One Skillet Meals. ⁸¹

One skillet meals are a dilemma in cooking form; every ingredient needs to be cooked a different way, but you only have one pan and one burner to do so. Some ingredients need lower heat for a shorter amount of time, others need to be cooked longer or hotter. The "secret" to cooking one-pot meals is giving each individual ingredient the cooking time and temperature it needs by way of a delicate dance of stirring (to keep an ingredient cooking evenly), adding/removing (to give an ingredient some alone time), and recombining at different times to bring everything together at just the right time to let the flavors meld.

I've talked about Stir Fry in the basic theory section, and there are too many styles of one skillet meals to talk it over again. Instead, rather than talking again about small pieces of food cooked quickly over very high heat, I'd like to talk about medium sized pieces of food cooked over medium heat. These recipes are everywhere. They are in *Cooking Light*, all over Pinterest, and even pop up in Julia Child's cookbooks.

Select a piece of meat per person (be it pork chop, chicken breast, steak, or fish fillet), dredge in flour, and brown in oil. Remove from pan and add vegetables/aromatics. Season. When the veggies are cooked, deglaze with a liquid (such as wine, broth, vermouth, water, milk, or other cooking liquid), return meat to pan, and simmer until meat is finished. The flour on the meat should thicken the liquid provided you kept to a ratio of 1 tbsp flour/cornstarch to 1 cup liquid.

⁸¹I give up

Seems simple enough, right? Take some pork chops dredged in flour and seasoned with sage, salt, and pepper. For the vegetable selection, prepare some mushrooms, chopped onions, and diced potatoes cut small, about 1cm per side. Equal parts red wine and broth will make the liquid. Simmer until pork chops are cooked through, about 10-20 minutes. Add the pork chops to some hot oil and brown, then remove. Brown the mushrooms, reduce the heat, and add the onions. Cook until the onions are clear and add the potatoes. Pour 1/4c red wine and 1/4c broth to the pan and scrape the brown bits off of the bottom. Simmer until potatoes begin to soften and add the pork. Cover and simmer until pork is finished cooking. There should be enough flour on the pork chops to thicken the liquid into a sauce.

Want to try something a little different? In a large ziplock bag, combine 2 tbsp oil, the juice from 1 lemon (2 tbsp), 1 1/2 tsp salt, 1 1/2 tsp oregano, 1 1/2 tsp ground cumin, 1 tsp garlic powder, 1/2 tsp chili powder, 1/2 tsp paprika, and 1 sliced chicken breast, cut into strips. All of those seasonings combine into something that is roughly the same as half a packet of taco seasoning. Good to know if you're in a hurry. I won't judge. Heat some oil in a large cast iron skillet and add 1 red pepper cut into strips, 1/2 chopped onion, and 4 green onions, thinly sliced. Cook until the chopped onions are clear. Remove the vegetables and add the drained chicken. Cook for about 5-8 minutes, or until the chicken is no longer pink. Really crank the heat and add the peppers and onions to the pan. Brown it all. Spoon onto tortillas and garnish with whatever Tex-mex style ingredients you have in your fridge. Congrats! You just made fajitas!

Want to make something fancy? Clams are in season (just barely still). In a high-sided, large saute pan (frying pan with vertical sides), add 1 tbsp oil and 6 minced cloves of garlic. Cook for 30 seconds. Add 1/2 C water, 1 C white wine, 30 littleneck clams (cleaned, purged, and scrubbed, and cook until the clams open (about 5-7 minutes). Remove clams from pan (and the pan from heat), set aside 12 for appearance's sake, take the remaining 18 and remove from the shell before roughly chopping the meat (Chef's knife with a rocking motion back and forth will do). Return the pan to medium high heat and add 3 cups water and 8 ounces pasta. The recipe also calls for 1 cup clam juice, but I will find any excuse not to use clam juice. Cook pasta until done, salt to taste (1/2 tsp). Stir in 3 tbsp oil and chopped clams. Serves four. Garnish with lemon wedges and reserved clams. [Recipe Here](#).

Once you start looking through enough recipes, you will begin to see common patterns emerge. Meat + Veggies + Liquid + seasoning all in a pan with little modifications can seem repetitive on paper, but actually lead to a very wide variety of dishes and cuisines. Almost every culture has their variation on it and experimenting to tease out what essential bits there are in a dish can be half the fun.

Crock Pot

(Bunch of ingredients + liquid) / Time = Slow Cooker Meals

If cooking one skillet meals is a delicate dance of timing and precision that

respects each ingredient's requirements, a typical slow cooker recipe involves finding ingredients that can not only withstand having the bejebbers cooked out of them but are improved by it.

The slow cooker excels at taking tough pieces of meat and breaking them down by literally melting the connective tissue into something that also thickens sauce. When selecting pieces of meat for the slow cooker, look for tough pieces of meat with large amounts of collagen. Darker meat tends to be more resilient to the slow cooker. I have seen chicken breast recipes for the slow cooker, but unless it is shredded and sauced afterwards, I have not seen a good chicken breast recipe for the slow cooker.

In addition to tough meats, tough legumes and starches also do well in the slow cooker. Beans and brown rice have tough fibers and dried out bits that require long periods of low, wet cooking in order to cook properly. While white rice may cook in 10-20 minutes, brown or wild rice takes much much longer. Some beans need to be soaked overnight or simmered on the stove for hours. With the exception of kidney beans and a few others that need to be soaked to remove less than desirable components, most dried beans thrive from being both soaked and cooked in the crock pot over 4-8 hours.

In addition to beans and rices, many vegetables that may fall apart at higher temperatures hold up fairly well in the low heat, low turbulence environment inside a slow cooker. Finding these vegetables and starches is the key to slow cooker success.

According to some parts of the internet, the Crock Pot is so hot right now, and they are kind of right. Modern slow cookers all bring food up to a boiling temperature or higher and hold them there. The slow cookers of old used to have a setting that would hold food at 160 or lower, but all that changed. Keep that in mind when digging up old old recipes from the seventies. Recipes that used to sit all day at a reasonable temperature can now burn in modern slow cookers.

While it is now possible to burn things in a slow cooker, it still can not be used for proper browning. This means that traditional crock pot meals tend to emulate wet cooked recipes, such as stews, pot roasts, dips, sauces, meatballs, soups, and casseroles.

This is actually good news because the typical crock pot recipe can be made by someone who is waiting for their coffee to brew. Find a bunch of ingredients, add into the pot, and let cook all day. You can get fancier than that and many people do, but at its heart, the slow cooker was a labor saving device. For beginners who are looking to build confidence in their kitchen skills, I would recommend following the KISS principle for crock pot recipes until you get more comfortable with substituting the slow cooker's low intensity heat for other cooking methods.

Want to go meatless? Add 1 cubed eggplant, 2 cubed zucchini, 1 diced red pepper, 1 chopped onion, 4 minced garlic cloves, 24-26 ounces of marinara sauce, and 2 cans diced tomatoes to a crock pot and cook on low for about 4.5 hours. Stir in 1 package of uncooked ziti and cook for about 25 minutes, or until the ziti is done.

This is not really a meal, but I do want to get you thinking about cooking some non-traditional stuff in the slow cooker. I know everybody loves buffalo wings, but I can't do them in the slow cooker. Instead, add 1 12 oz jar of pineapple preserves, 10 chopped green onions, $\frac{1}{2}$ cup soy sauce, juice of 2 limes (3 tbsp), 2 tbsp honey, 2 minced garlic cloves, 2 teaspoons sriracha (or less if you don't like heat), $\frac{1}{4}$ tsp ground allspice, 3 pounds of chicken wings (drumettes and flats, split at joints) to a slow cooker. Stir and cook on low for 3-4 hours. I don't care what anybody says, I could eat these as a meal.

The internet is brimming with slow cooker recipes. Head over to [/r/slowcooking](#) for more.

The crock pot can be a valuable learning tool for the beginning cook. Just because it is easy doesn't mean that you can't learn from it. By being able to "ignore" the heating part, you can work on your flavor balance, seasoning, ingredient prep, and other cooking skills, all while putting a tasty meal on the table and building confidence in the kitchen. Just don't stagnate and rely on the slow cooker as a crutch for too long, use it as a stepping stone and bust it out for your favorite slow cooker recipes.

As an aside, they do make counter-top roasters which get up to 400^o-500^o. These look like a slow cooker but are designed to cook meats using dry heat. Their superficial similarities are worth mentioning if only because the two counter top cooking appliances are incompatible with each other's recipes. However, I am tempted to get one every time my oven turns my kitchen into a sauna in the summer.

Saute then Roast Meals

No equation here⁸². I tried typing one up, but decided that plain English works best here: Season/Brown your meats and veggies on the stove top, add some optional liquid and maybe some starches, and then finish in the oven. Remove meat from the pan, return pan to stove-top, and reduce liquid into sauce.

This is why people idolize La Creuset enameled cast iron. This is why grandma's cast iron is so dear. This is why grandma still prowls⁸³ yard sales looking for old borosilicate Pyrex. Being able to go from the stove-top to the oven and back again is a way of turning a single dish into a saute pan, a casserole dish, a dutch oven, and back into a sauce pan. This is how people make pot roast, this is how restaurants make duck breasts, and this is how I keep myself from having a pile of dirty pots and pans at the end of dinner.

In February, I linked to a video where Martha Stewart made pot roast. It doesn't get any better than that style for pot roast. Enameled cast iron, like La Creuset, is king of the pot roast in my opinion. I don't have a La Creuset dutch oven because I am made of meat and not money, but I do have a \$30 6qt enameled cast iron that my wife found at sam's club a decade ago and it is pretty good at this. If anybody from La Creuset is reading this and

⁸²Hooray!

⁸³Like a cougar... Rawr!

wants to reward me for mentioning La Creuset this many times in front of such an illustrious audience of seven die-hard followers and approximately nineteen crickets, I wouldn't be opposed to continuing such crass advertisements.

So back to pot roast. I have made it in a foil pouch, but I still browned it first on my cast iron pan. In order to keep with the "one pot" theme, get an oven safe, stove-top capable vessel that can hold a significant volume such as a dutch oven, enameled pot, or covered roasting pan. The cover is important because while in the oven, the piece of meat needs a wet heat in order to melt the collagen. Collagen, or the bit of goodness that makes connective tissue and skin so springy, melts at temperature and dissolves in water. For those of you who are here from January's class, braising fits the bill here since the lid creates a hot, wet environment within the container and keeps the liquid from boiling off too soon.

Season and brown the huge piece of tough meat on the stove-top in your dutch oven, toss in onions, carrots, and some herbs, and then deglaze with some liquid. Toss some potatoes in and throw the whole thing into the oven for an afternoon. Remove the meat and chunkies from the pot and then thicken the liquid into a gravy. Serve and enjoy.

Maybe pot roast isn't your thing? Maybe you don't want to cook all afternoon or you want your food's Berbers to not be cooked out by the cooking process. I just spent the past three hundred words extolling the virtues of braising, but if you're interested in one pot baking, try this on for size. Preheat the oven to 400°F. Take a twelve inch oven safe skillet or saute pan and heat some oil in it. Season a few inch and a half thick pork chops with salt and pepper, brown in the oil and remove, core and cut some apples into sixths or eighths and brown those too, toss in some fresh sage and re-add the pork chops, and toss into a 400°F oven and cook until the pork chops reach 145°F according to your thermometer. Let rest and serve. One pot meal? It's got meat, it's got an apple to keep the doctor away, and the sage is like salad. I think this qualifies as a one pot meal.

OK, fine, I cheated. Even though I would serve the pork chops as a meal in my house, my family knows that I'm lazy like that. So here is a method to get 2 meals out of one roasted dish. Preheat the oven to 350°F, add 2 tbsp butter and 2 tbsp olive oil to a stove-top safe roasting dish over medium heat. Salt and pepper 4 bone-in chicken thighs and brown the skin. Set the chicken aside and add 1 chopped leek and 8 ounces of sliced mushrooms to brown. Deglaze with $\frac{1}{4}$ cup of white wine and bring to a boil. Add 10 whole garlic cloves, 10 sprigs of fresh thyme, 4 cubed waxy potatoes, 1 tbsp rosemary, 1 tsp black pepper, 1 tsp paprika, and 2 tbsp salt. Squeeze the chicken thighs back into the pan so that the skin side is up and roast covered in the oven for about 30 minutes. You can cover with aluminum foil if you don't have a fitted lid. Remove cover and cook for another 10 minutes.

For the second meal, use the leftovers. Remove skins and bones from the chicken and shred the meat. Squish the garlic, potatoes, and other roast vegetables onto tortillas and sprinkle with the shredded chicken and some shredded mozzarella cheese. Bake for 10-15 minutes in a 425°F oven for some pub pizza.

Even though I live somewhere that I can grill year round, I still have to cook a steak indoors when weather limits me. In order to do so, pull your steaks from the fridge early and bring them up to room temperature. Preheat your oven to 200-250°F. Place your cast iron skillet over medium high heat until it gets really really hot. The hotter the better. The way I season my cast iron makes it smoke at around 550°F, so I do like to keep it below that for the pan's sake. Right before adding the steaks to the pan, salt liberally with kosher salt. If you salt before, it'll draw liquid out of the meat and January's class established that water was the enemy of browning. Sometimes I'll toss in a pat of butter or duck fat right before throwing in the steaks to aid in heat transfer. After you get a good brown on your steaks, but while the insides are raw, insert a meat thermometer and set it to beep when the steak reaches 120-125°F (it'll rest up to medium or medium well from there) and bake in the oven. As soon as the thermometer beeps, move the meat to a plate to rest while covered with loosely fit aluminum foil.

Move the skillet to the stove top over med-low heat. Melt in 2 tbsp of butter and saute 2 cloves of minced garlic. Add a bunch (as in the rubber-banded unit that they sell in stores, not a whole lot) of asparagus, chopped into 2 inch pieces. Cook covered for 2 minutes, pour in 1/4 c red wine (stir it around to get the crusty bits from the steak up) and cook over medium high heat until the wine evaporates, about 4 minutes. Remove asparagus to a serving dish.

But wait! There's more! Take your still hot pan, add yet more butter, fat, whatever (super healthy here, can you tell?) and add in 8 ounces of mushrooms. Season with garlic salt (1/2 tsp is enough here, there should be salt left over from the previous steps), and quickly cook through. At this point, there is enough browning in the pan that browning the mushrooms should be optional. Add in 1/4 cup red wine and 1/4 cup broth and deglaze the pan before melting in 4 ounces of Gorgonzola cheese.

One pan steak with Gorgonzola mushroom pan sauce and a side of asparagus. If you planned it right, the asparagus and mushrooms should have cooked in about 10 minutes total which gave the steak just enough time to even out it's temperature to the 130-135 zone that I prefer.

Making use of a pan's ability to go from stove-top to oven and back again is huge in that it not only reduces the clean-up cost of cooking, but also lets a beginning chef focus on doing one thing at a time. It does take longer because each step happens in sequence, but if you give each step its full attention, you will be less likely to burn food than if you were doing many things at once.

##Honorable Mention - Soups

I am going to do a huge disservice to all the soups that ever were out there by boiling down some of the most diverse and culturally important portions of many different cuisines into a single formula that will let you freestyle on a cold day.

(Browned Meat in oil + aromatics + a tbsp of flour + starches/beans + seasoning + lots of liquid) / heat in a large pot = Soup.

There are more exceptions to this formula than there are soups that fit, which is why soups get an honorable mention instead of its own section.

The flour, sprinkled over the aromatics after they are sweated or browned, aids in thickening the broth but is optional. Even if you use homemade stock, a little thickening boost helps. You just have to simmer things long enough to cook the cereal taste out of it.

When it comes to liquid, you can add anything in your kitchen. French onion soup is made with beef broth and red wine. Chicken soup is just chicken broth. I make pumpkin soup with pureed pumpkin and vegetable broth. Hitting a soup with some heavy cream at the end is a great way to make a hearty soup. Chili is made with just about every liquid available in some recipe or another. Some soups have ingredients that are so flavorful that just adding water is enough.

Recipes and Videos

Videos

How to make a foil bag: <https://www.YouTube.com/watch?v=d3yDbf2PLAQ>
This is essential for pouch cooking. I make small ones for individual servings and big ones to make pot roasts in.

Alton Brown's Pouch Cooking video: <http://www.foodnetwork.com/recipes/alton-brown/ramen-shrimp-pouch-recipe.html>. There's a video on that page. I know I posted this above, but it is still worth watching.

Stir Fry Pork and Broccoli tutorial: https://www.YouTube.com/watch?v=iLu_hVwVQTK One pot stir fry tutorial, quick, easy, tasty, and cheapish.

Pan Roasted chicken: <https://www.YouTube.com/watch?v=VBd0XL1-nUI>
Start on the stove-top, finish in the oven. It's all good. I will also throw in some vegetables to go along for the ride.

Slow Cooker Beef and Broccoli: <https://www.YouTube.com/watch?v=05AaNJWBdgA>
If you haven't noticed by now, you can take a bunch of ingredients meant for one recipe method, and throw it into another format for a different take. Here is a slow cooker beef and broccoli that could just as easily be modified for stir fry.

Recipes

I am abstaining from providing recipes this month. I have listed enough above. However, I will be posting "what's your favorite" recipe threads during April and linking those here.

What's your Favorite Stir Fry? https://www.reddit.com/r/cookingcollaboration/comments/4csbgr/what_is_your_favorite_stir_fry_recipe_to_make_at/

What's your Favorite Pouch Meal? https://www.reddit.com/r/cookingcollaboration/comments/4drp8e/what_is_your_favorite_pouch_recipe_to_make_at/

What's your Favorite One Skillet Meal? https://www.reddit.com/r/cookingcollaboration/comments/4e1112/whats_your_favorite_one_skillet_meal_april_tiein/

What's your Favorite Stovetop to Oven Meal? https://www.reddit.com/r/cookingcollaboration/comments/4fhdp3/whats_your_favorite_stove-top_

to_oven_meal_april/

What's your Favorite Crock Pot Meal? https://www.reddit.com/r/cookingcollaboration/comments/4gf9xp/what_is_your_favorite_crock_pot_recipe_april/

Conclusion

I feel like this post is ripe for being simplified and turned into a pithy infographic by a graphic arts student. I hope that my little formulas will help you get over your fear of the kitchen and give you a mental framework to start understanding the recipes that you cook.

I will admit that I have grossly oversimplified many different recipe types and many different cuisines in this post, but I make no apologies for it. The important part is what goes on the table.

Class 5: Grilling

Introduction

This month will focus on the grill! The grill is my favorite thing in my backyard. I will burn steaks and burgers with the best of them. If you don't have a grill or have access to one, most of this will work with a George Foreman or some creative oven work.

What makes the grill special

I would like to clarify that grilling is not barbecuing. The chief difference between grilling and barbecue is that grilling is hot and fast and BBQ is low and slow. You technically can use a grill to smoke food all day, but this post is focused on the grill's ability to cook a wide variety of foods for a single meal in a short period of time.

A grill is any open metal grate above a high dry heat source. Food is cooked via infrared heat energy from the heat source, convection from the heated air, and a little bit of direct heat from the grates. A cover can trap the hot air and will turn it into a bit of an oven. The downside of grilling is that because it uses such a high heat, it can feel like you are limited to small or flat pieces of food. Some people can manage to roast an entire chicken on the grill, but I prefer to flatten it out by spatchcocking it. Though spatchcocked chicken is getting dangerously close to barbecuing as it takes a longer time and relies on indirect heat. It is also seriously delicious. I consider it to be a bit more advanced but make it if you feel up to it.

This size limitation is also why steaks, hamburgers, chicken breasts, and sliced vegetables are the traditional grilling fare. If something is more than an inch or two tall, it tends to get taken indoors where it is baked, broiled, or cooked in the kitchen. Thermodynamics is working against you if you're trying to grill a whole turkey. The skin will burn before the insides cook through, but there are non-turkey recipes that take advantage of this high heat to caramelize the outsides of food while leaving the insides raw. Grilled fruits make for fantastic desserts and searing the outside of sushi grade tuna while leaving the inside raw makes for a fantastic presentation.

Grills can come in many forms and use many fuels. For this post, an electric george foreman counter top model can work as well as a charcoal burning monstrosity. I have a combination grill that has a side for charcoal and a side for propane and the decision for which side and the decision for which fuel to pick comes from how long the grill will be hot for. If the grill only needs to be on long enough to sear some steaks, propane is in order. If the afternoon will be filled with grilling festivities, charcoal makes an appearance. When it is rainy and miserable out and all I want to do is grill a side of vegetables, I'll break out my electric panini press and grill on that⁸⁴.

What makes the grill special then? An average grill has enough space and control to cook everything for a meal at once. It is possible to have grilled corn with hamburgers and toasted buns, grilled asparagus or zucchini as a side. With some planning and switching, you can also grill flat breads to accompany the meal. I have yet to figure out how to make potato salad on the grill, though.

Much like last month's post about one-pot meals, using the grill is a great way to build confidence in your ability to plan, prepare, and execute meals. However, rather than focusing on techniques, I'll cover some basic dishes that you can use to build a foundation of skills and branch out from.

Using the Grill

A well maintained grill is a happy grill⁸⁵. Get a cover to keep the rain off of it to keep it from rusting and clean out your grease trap regularly. If you use charcoal or briquettes, the ash can cause the bottom to corrode out since wet ash is a source of Lye. Clean the grates regularly and decide how you want to treat them, long term. Shiny metal grates may need to be scrubbed down and kept oiled while cast iron grates can be seasoned similarly to a cast iron skillet pan. However you plan on protecting your grates, either by keeping it meticulously cleaned and oiled or properly seasoned, scrape off whatever food chunks may be hanging on. That stuff is gross.

After the grill is heated, apply some oil with a rag and some tongs to the grate before putting your food on to help prevent sticking. Keep a fire extinguisher handy in case your oil soaked rag catches fire because you weren't quick enough. Finally, for your food's sake, don't leave your grill's side while food is cooking. It's 6-10 minutes of cooking time, tops. Your grill will always be there for you, the least you can do is to be there for the good times.

For a charcoal grill, invest in a chimney since it will both measure out the appropriate amount of charcoal for your grill and get it all uniformly hot for you. Pour your charcoal into the chimney and set the whole thing on a small pile of burning newspaper to get things started. Spread the charcoal around the bottom of your grill when it is hot enough and start cooking. Grilling recipes

⁸⁴My grill has since broken down due to rust so most of my "grilling" actually happens indoors, on my cast iron nowadays.

⁸⁵My grill is not happy anymore, it got damaged in the move, I think it lost some structural rust.

I grill over high heat and flip the chicken breasts often because I prefer a more even cooking and don't really need the char or deep browning that red meat requires. If you have a sauce with sugar in it that you are using, strike a balance between getting the sauce hot enough to caramelize but not so hot that the sugar burns.

Tataki

Grilled fish. Everyone grills fish, right? I don't think enough people are grilling tuna right now. If you have been following the environmental news, bluefin tuna is overfished and probably priced out of your price range right now. The good news is that yellowfin tuna and other varieties are being fished sustainably and it is possible to find conscience friendly sushi grade tuna.

The real secret to tasty tuna tataki is in the brine. Cut tuna into 1/3 pound servings (ideally think tubes or rectangular prisms rather than steaks or cubes). Dissolve (by weight) 1 part salt for every 8 parts cold water and submerge tuna for 2 hours in the refrigerator. Drain and roll in sesame seeds. Make some ponzu sauce by combining $\frac{1}{2}$ cup soy sauce, $\frac{1}{4}$ cup orange juice (or the juice of a Valencia orange), 2 tablespoons lemon juice (or the juice of a lemon), 1 tablespoon mirin (or $\frac{1}{2}$ tsp brown sugar), and 1 tablespoon water (to taste). Tuna tataki loves ponzu sauce and making it at home is so much better than pouring from a bottle.

I am also taking the time here to illustrate another awesome function of the grill: It can be used like a stove-top. When you are almost finished preheating the grill, about 3-5 minutes before it finishes coming up to temperature, put a cast iron skillet on the grate and let it come up to about 500°. You'll know it is this hot when a drop of water skitters across due to the leidenfrost effect. Any hotter than this will cause the seasoning on the pan to start smoking and degrade. At the point where water dances across the pan, pour olive oil in the bottom and spread it around to prevent sticking and toss in your tuna.

The goal with tataki is to have sesame seeds that are perfectly roasted, a ring of seared and cooked fish, and a raw inside. This is best accomplished by letting the tuna sear for a minute or so per side and turning when the the color at the end of the fish creeps up a tiny bit. I personally finish off by searing the ends for food safety reasons because while the inside of tuna may be safe, the outside may have touched a cutting board that wasn't clean. I finish off by slicing thin with a sharp knife and arranging the slices on the plate for visual effect.

Tuna tataki is one of the prettiest easy dishes and easiest pretty dishes that I make.

Grilling vegetables

In the spirit of Cooking Collaboration's Collaborative Learning Classes, this section will feature a series of gross oversimplifications that will get you most of

the way towards your goal of Cooking Competently. Here are the four conditions for grilling vegetables:

1. If a vegetable is corn, and you are interested in grilling the corn, soak it in water first. Before grilling peel the husk back, remove the silk, and then grill in the husk. You may apply butter when the husk is peeled back. If you are cooking in campfire coals, wrap it in foil to prevent combustion.
2. If a vegetable is cut into chunks or something that is too small to be managed with tongs, make a plate of tin foil and use that to keep everything contained.
3. If a vegetable is too big to grill evenly, cut it into slices. This applies to eggplant, zucchini, summer squash, and any other vegetables that aren't shaped like hockey pucks.
4. If you are grilling asparagus, prepare it like you would normally: without blanching, toss in olive oil, season with salt/pepper/garlic, and grill hot and fast.

Also, there should be three rules that you should follow for excellent flavor. You can disregard these rules as you see fit, but at least understand why you are breaking them.

1. Grilled vegetables need some sort of fat to aid in cooking and crisping. It doesn't matter if it's drizzling on olive oil or shoving bits of butter in corn husk, a little bit of fat goes a long way towards that all important browning.
2. Grilled vegetables need seasoning and flavor. Where appropriate, salt and season the vegetables so that your guests do not need to adjust seasoning levels. Most vegetables are edible raw, and if you aren't sure if you have added enough salt or pepper, take a bite. It will taste uncooked but will give you an idea of what the finished dish will taste like. For a minimalist take, most vegetables benefit from being drizzled with olive oil and tossed with garlic salt.
3. Grilled vegetables can have a little bit of char to them. A little bit of char is a good thing. Charred food and ash brings bitterness to the plate. Too much char and the vegetables are burnt. However, don't be afraid to let the tips and edges of your vegetables burn a little because that char is a flavor just like salty, sweet, or sour. However, if it is a choice between getting that char and drying out the dish, you don't need the char because dried veggies are no fun.

When learning to cook vegetables on the grill, pay most of your attention to the cooking times. Those will give you the best guesses at doneness since cooking vegetables on the grill is finding the point where they are cooked enough to be soft enough to eat but not burnt. If you are unsure of the seasoning, try a bite of the raw veggies before tossing them on the grill to see if you have added enough salt and seasoning.

Grilling Dessert

Grilling desserts probably stems from the age old influence of “hold my beer” and probably happened more from a philosophy of “Hey Billy, let me see that slice of watermelon real quick.” Most of the fruits we classify as fruits are sweet from an abundance of sugar and starches. The starches convert into sugar while being cooked and make everything even sweeter.

As there is no guarantee that every piece of fruit is ripe and sweet, most recipes involve a drizzle with either honey or brown sugar to both bolster the sugar content and provide free sugar on the surface which will caramelize over the grill’s high heat.

Take a look at these various grilled fruit recipes for ideas on the common theme of exposing fruit to high heat and pairing it with another component for a nice contrasting dessert:

- Grilled Peaches: <http://www.foodnetwork.com/recipes/bobby-flay/grilled-peaches-with-cinnamon-sugar-butter-recipe.html>
- Grilled Bananas: <http://www.tasteofhome.com/recipes/honey-rum-grilled-bananas>
- Grilled Apricots: <http://www.foodnetwork.com/recipes/bobby-flay/grilled-apricots-with-bittersweet-chocolate-and-almonds-recipe.html>
- Grilled Figs (More of an appetizer): <http://againstallgrain.com/2012/07/18/grilled-figs-with-balsamic-glaze-and-goat-cheese/>
- Chilli Lime Grilled Mangoes: <http://www.food.com/recipe/chili-and-lime-grilled-mangoes-1122>
- Grilled Strawberries: <http://www.food.com/recipe/grilled-strawberries-123265>
- Skewered Cantaloupe: <http://allrecipes.com/recipe/14576/skewered-cantaloupe/>
- Grilled Apple Slices: <http://www.extraordinarybbq.com/grilled-apple-slices/>
- Grilled Plums: <http://www.marthastewart.com/349907/grilled-plum-kabobs>

Study all of these and you will be able to take any fruit, coat it in some sort of sugary or spicy coating, and expose it to high heat for dessert. Depending on your preferences, you can combine it with iced cream or whipped cream to round out the dish.

Recipes and Videos

I am going to repeat last month’s method of posting weekly discussion threads.

Burger Recipe and Techniques Discussion: https://www.reddit.com/r/cookingcollaboration/comments/4h6u3q/burger_recipe_and_techniques_discussion_may_tiein/

Other Meat Recipes and Techniques Discussion: https://www.reddit.com/r/cookingcollaboration/comments/4jc602/grilling_meat_recipes_and_techniques_discussion/

Grilled Vegetables Recipes and Techniques Discussion: https://www.reddit.com/r/cookingcollaboration/comments/4jqplj/grilled_vegetables_recipes_and_techniques/

Grilled Fruit Recipes and Techniques Discussion: https://www.reddit.com/r/cookingcollaboration/comments/4l02t6/grilled_fruit_recipes_and_techniques_discussion/

Videos

Controlling charcoal grill temps: <https://www.YouTube.com/watch?v=-K0TcY8Vong>

Gas vs Propane? There is no right answer, and sometimes the best answer is “Both”. Watch this video from the art of manliness to see the pros and cons of each: <https://www.YouTube.com/watch?v=yQPkc1qMnqM>

Your grill is nasty. Clean it: <https://www.YouTube.com/watch?v=Jtc5u0-666E>

Grilling Vegetables: <https://www.YouTube.com/watch?v=ktJZdZ8SVJ8>

Notice how I didn’t have a section on steak? If you comment about how I didn’t talk about steak, I will call you out for not reading the entire thing. It’s quick and easy. Pick up a good cut of steak, drizzle with oil, season with salt and pepper, and toss on a rocket hot grill. Here’s how: https://www.YouTube.com/watch?v=V_yDTSrsv5g

Conclusion

So it is now grilling season. Go forth and conquer the backyard with your trusty tongs and spatulas. The grill is a fantastic way to cook an entire meal at once. Start practicing your timing and prep to grill everything at once and have it hit the table all at the same time.

Class 6: Eat Your Fruits and Veggies

This post was shorter and rougher than I'm used to putting out. I had originally meant to expand it out during the editing and compilation phase, but life has been pretty interesting between this post and now so you get it largely unchanged.

Fruits and Veggies

“Knowledge is knowing that tomatoes are a fruit, wisdom is not putting it in fruit salad.”

Fruit and vegetables are in season⁸⁷. Eating seasonally helps you save money, get the freshest ingredients, and vary your diet. I don't follow it exactly, but if artichokes are in season, I'll make a few artichoke dishes while they are cheap. When it comes to sheer variety, you can find four to six species in the meat department, about ten in the seafood department, and more than that combined in the produce section.

Don't just walk into the produce department to grab mushrooms or apples, look at how it changes throughout the year and see if any fruits or veggies look particularly good or are on sale.

They can be boiled, mashed, put into a stew, steamed, pureed, roasted, braised, simmered, sauteed, sauced, reduced, cooked into stock, and eaten raw. They can support meat dishes or be the star of their own diet and lifestyle. While historians and anthropologists say cereals were responsible for the rise of civilization, I think it was the search for shallots and bell peppers.

Fresh vs Frozen vs Canned

One of my favorite ways of adding variety to my meals and stretching myself, culinarily, is to try to incorporate different fruits and vegetables into my meals. Once upon a time, people could only eat the food that was grown locally. They

⁸⁷I seriously love this eattheseasons.com site. Use it, love it, eat in season to save money and increase variety.

couldn't ship asparagus up from the southern hemisphere and have it in December. Now, with modern food preservation methods, we don't have to go without green beans in winter. The fine art of preserving veggies via pickling and canning is dying out and people only eat fermented cabbage because they like it with their brats.

I probably buy more frozen than fresh for just about every vegetable except for onions and potatoes. Unless I plan on using a fresh veggie right away, it will probably rot after I forget about it and need to be thrown away. Buying fresh is kind of my version of a New Year's resolution: Lofty intentions are overcome by lack of follow through only to result in sadness.

Thankfully, the legendary observation by Mr. Birdseye that flash frozen trout were almost as good as fresh led to a whole industry of frozen foods. A bag of frozen green beans can comfortably chill in the back of your refrigerator for months and be steamed into a side dish that can rival fresh picked. This is because the ice crystals that form when something is flash frozen are very small and don't puncture cell walls. This means that when the flash frozen food thaws, it doesn't turn limp or have all of its liquid drain out until the cooking method does the damage. When you freeze something in your freezer, it takes much longer and the ice crystals grow much larger, blasting through cell walls and creating escape routes for liquid and flavor.

The loss in quality with frozen becomes negligible for almost every vegetable when they are cooked by boiling, steaming, or other wet methods⁸⁸. Unfortunately, the same can't be said for canned vegetables or frozen fruits. Blueberries and strawberries are far more delicate than peas and broccoli. When vegetables are canned, they are heated up to boiling temperature or above in order to sterilize everything inside and keep it from going bad. This means that your canned green beans are fully cooked, and many would say overcooked, before you break out the can opener.

All's not lost though, just like canned vegetables have their place in casseroles and dishes that would cook fresh to the same level of over-doneness, frozen fruits also have their places in smoothies, jams, compotes, flambes, and sauces.

Fruit Sauces and using Fruits in Savory Dishes

Fruits are fantastic ways to add sweetness, color, new flavors, and nutrients to a dish, but you are doing yourself a great disservice if you are letting all of your fruits languish on the "sweet" side of the sweet/savory spectrum. I am sure most of you are well versed in using lemons to season seafood, or glazing a ham with some sweet sauce, but just as cranberry sauce pairs well with a turkey at thanksgiving, fruits of all kinds can be perfectly at home in a savory dish.

While there is an urban legend going around that onions⁸⁹ have more sugar

⁸⁸I actually cooked frozen peas tonight for dinner. Take some frozen peas, boil them for 5 minutes (don't start the timer until you see bubbles) in heavily salted water, drain the water off, melt 1tbsp butter in the pan, season with a few twists of fresh cracked pepper. Amazing.

⁸⁹This was something I learned. I actually thought that onions had more sugar than apples but they didn't taste as sweet because of the "other stuff" going on in onions. Apples actually

than apples, it does raise an interesting point. If we make sauces with onions, which can be very sweet⁹⁰, why do we limit our savory sauces to vegetables? We already use salt and acid to balance the sweetness of our vegetables, why can't we use those same tools to compensate for the sweetness of blueberries?

Pork is a fantastic canvas upon which you may paint your flavors. Unfortunately, the modern pig has been bred into a tasteless source of bacon and "the other white meat" which begs for additional flavors to compensate for its loss. Bacon is revered for its saltiness, smokiness, and abundance of fat, but not so much for how much it tastes like pork. Pork loin chops have no such crutch but its lean neutrality pairs very well with a variety of flavors.

My favorite pork recipe is a balsamic rosemary pork loin, but adding some garlic and blueberries to the mix is a fantastic. The cookbook with the recipe I use is currently in a box, so some substitution will have to do⁹¹. The night before (or 1 hour before), marinate 4 pork loin chops in a ziplock baggie with 1/3c balsamic vinegar, 2 tbsp water, 1 tsp minced garlic, 1/2 tsp salt, 1/4 tsp pepper, 1/2c olive oil, 1/2 tsp rosemary, and 1/2 tsp basil. When it is time to cook, remove the pork chops from the marinade and cook in such a way that the pork-chops will brown and the internal reaches "done" temperature. I'll use the sauce pan, the grill, bake in the oven, or whatever other method is most convenient that night. While the meat is cooking, add 1 cup blueberries (fresh or frozen), 1 cup water, 1/2 tsp balsamic vinegar, and some 1/2c sweet red wine (that recipe calls for sugar but I think it would turn things too sweet) to a saucepan and bring to a boil. Reduce to a simmer and cook off 3/4ths of the liquid. Add some salt to taste and serve over the pork chops.

Not every fruit dish needs to be super sweet, but contrasting sweet and acid with savory is a way to brighten a main course.

Salads

I know that I am kind of stretching things here by talking salad, but greens share the top spot of the "wanted, dead or alive" food list with broccoli, and they share a lot of the same problems. Broccoli and greens are bitter. As soon as you hop off the lettuce bandwagon, you run into an age old problem that some greens aren't super tasty by themselves. They are nutritious and abundant, so over history, people have found ways to make these greens tasty. Salad dressing is a solution to these problems.

Fixing this bitterness why Salad is called Salad. Salad comes from the same Latin root of Salt and throughout history people have used salt to counter bitter⁹². Don't believe me? Put a pinch of it in your coffee or a tiny bit on some grapefruit⁹³. The bitterness will go away and it won't taste salty. At its

have more sugar and I learned something when I wrote this.

⁹⁰I wrote this sentence before I researched into being wrong. Onions still can be very sweet though, caramelized vidalia onions are very sweet.

⁹¹I have the cookbook now and I can't find the recipe. Sorry.

⁹²Class 2

⁹³See? I just said that in class 2

very heart, everything you do needs to enhance the other, non-bitter flavors of the greens and suppress the bitterness. Bitter comes from basic compounds and acids counter that. This is why a common portion of salad dressing is acid, but it's not necessary. Salt can work too.

So why Oil then? Oil dissolves different things than water does. It can carry fat soluble nutrients and flavors that wouldn't carry as well. The oil doesn't protect the leaves since they are already protected by a waxy (oil friendly) coating that repels the vinegar. Also, greens aren't super calorie rich on their own and olive oil is. If you were working in the fields and all you had was some olive oil from home and some foraged greens for lunch, the calories from the oil would sustain you through the day.

But oil and vinegar don't mix. They separate out and all the vinegar runs to the bottom of the bowl. You can blend the mixture so that the droplets are so small that surface tension holds everything separate and the blobs don't recombine, or you can add chemicals to help. A little bit of mustard, mayo, or other emulsifiers can help and add some flavor as well. The emulsifiers help everything stick evenly to the leaves so that you don't have a puddle of flavor enhancing vinegar at the bottom of a bowl filled with oily leaves.

When it comes to other flavors, you can always add herbs and spices to your meal and you can use your salad to complement the main courses. If you are serving pork, why not have salad dressing that complements pork? If you are serving Greek, why not have a salad that complements greek cuisine?.

A Warning Against Culinary Nudity

Why do kids hate vegetables? Honestly, if someone knows, please tell me. I have a 4 year old who doesn't like much of anything but is slowly getting better. Regardless of what picky toddlers like and don't like, adults dislike vegetables because they're in the habit of hating vegetables and were raised on limp, poorly seasoned, overcooked side dishes.

Green vegetables and greens share the similar problem, they are bitter and sulfurous. Overcoming these limitations with fat, salt, and other flavor tools is essential to rediscovering a love of vegetables. If you see recipes that involve smokiness or cream, it's because the recipe writer was attempting to overcome that. A classic pairing is broccoli and cheese sauce.

Vegetables are food too! It is a rare person who enjoys plain cooked flour and water, so why do we think people would react differently unseasoned, unsalted, steamed broccoli? Vegetables need to be part of a recipe. Even if the goal is to showcase the vegetable and be as naked as possible, a little butter or olive oil and some garlic salt will go a long way. Don't just toss some vegetables in a pot of water and expect everyone to love it. Use vegetable dishes as a way to expand your cooking skills and as a cheap way to experiment with cooking methods and new flavors.

Picking out Fruits and Vegetables

In the introduction, I linked to www.eattheseasons.com/. I bring it up again because it is such a fantastic resource when I am in a rut. It reminds me that there are vegetables that are at the peak of freshness and flavor that I probably wouldn't have thought about cooking last month. I am not saying that you need to be a slave to your farmer's market, but consider eating fresh. Your palette and your wallet will thank you for it.

Just because something is available in the produce section doesn't mean you should buy it. Picking out fruits and vegetables starts with some basic knowledge of what is being grown and picked right now, and ends with finding the best examples at the grocery store. All fruits and vegetables should be free from bruises and mold, and moldy fruit does make it to the grocery store but employees do a good job of tossing bad produce before it becomes a problem.

Some crops like apples, citrus, and watermelons are of uniform quality. Short of damage, picking random navel oranges will rarely result in one orange that is significantly better or worse than the others. Try to pick out ones that aren't bruised or damaged and are in season. Avoid green tinged citrus as they may not be ripe. You can play the "Heavy for their size" game but nobody really knows what that means. The best way to explain it is through an anti-example: Ever pick up a decorative fake lemon only to be surprised at how light it is? That's because you are used to the usual weight of a lemon. Use this expectation to your advantage. It's a practiced skill, but next time you are at the store, weigh citrus in your hands. Eventually, you'll get good at anticipating the weight of oranges and grapefruit and fruit that is lighter than expected will go back on the shelf.

Tomatoes at room temperature should smell like tomatoes. Pick one up and feel if it is still cold from the refrigerator. Chilled tomatoes are fine, but it is harder to tell if they were force ripened or not because cold tomatoes don't smell like anything. Most tomatoes sold in the grocery store are force ripened, which means that they were picked while they were unripe and green and then put in a box with ethylene which turns them red. Unripe tomatoes are harder to bruise and ship easier, so this process is fairly common. Some varieties of tomatoes, such as plum, vine ripens, uglyripe, and cherry tomatoes are allowed to sit on the vine a little longer before being force ripened which gives them extra time to accumulate sugar. The longer a tomato was allowed to sit on the vine, the more it will smell like a tomato. Farmers markets may be your best bet to get truly ripe tomatoes.

Peaches and Nectarines should also smell like peaches and nectarines. However, if a peach is soft like a dud-but-still-inflated basketball, it may be too ripe and should be eaten that day (same with pears). Ripe peaches also bruise easily. Unripe peaches will convert starch to sugar if they are given time. When buying peaches, nectarines, and plums, it becomes a question of "when do you want to eat it" and not "is this too unripe to ever be edible". Hard, scentless plums and peaches may take a few weeks to ripen, hard but fragrant plums and peaches may be ready in a few days, and firm to not-so firm plums and peaches

are ready to eat right away. Use your fingertips but try not to bruise the fruit while testing. After a few years of weeding out too-ripe-fruit, the best way I can describe it is that pears, plums, and nectarines should give less than when you press your thumb into your forefinger and still smell like fruit. Trust your nose and if the peaches are super firm and don't smell like anything, put them on the counter and check them daily for a few weeks.

Onions should have dry paper skins and be free of bruises and mold. There have been a few times that I have just not bought onions because the entire shipment was terrible. If you are going to caramelize onions, use sweet onions. If you are going to chop and add to a dish, use yellow or white onions. If you are going to slice and serve raw, red or white would probably be your best bet as red onions are the best kind of onion for mixing with salads or topping burgers.

For potatoes, pick out ones that are free of green, are firm and not wrinkly because old potatoes are wrinkly, and free of dents and dings. Believe it or not, not all kinds of potatoes are created equal, use Russets or Yukons for mashed potatoes, and red potatoes for roasting or use in soup and stews.

Melons are a whole other beast. Honey Dews get their name from an odd characteristic of their ripe fruit. When the melons are ripe, the honey dew's skin lets some sugar through which makes it somewhat sticky. When picking out a honey dew, drag your fingers across the melons and the one that you could almost pick up one-handed is going to be the sweetest. For cantaloupe, that weird beige netting that criss-crosses the skin is called netting. Look for raised netting with yellow underneath.

Pineapples are like cantaloupes in that the more yellow and less green there is in the deeper parts of the textured skin, the riper and sweeter it will be.

Trust your intuition. You know what damaged bananas and old salad greens are like, avoid those. The recent movement to allow "imperfect" fruits and veggies into the grocery store is not a license to sell bruised, damaged, or old produce.

Planting Your Own

Right now it's summer where I am which means that some of you may be hearing ads about buying vegetables to plant in your garden. Some of you may have already. Occasionally I will plant some edible plants and if you have the space for a window garden, it can be very rewarding. All it takes is a little bit of light and the occasional watering and you can have access to fresh basil and rosemary for a fraction of the cost of store-bought. Remember, when adding it to the dish to substitute for dried, use a 3:1 ratio of fresh to dried. Add 3 tsp (or 1 tbsp) of fresh chopped basil for every tsp of dried that is called for.

Conclusion

Hopefully, I've inspired you to take advantage of summer's bounty and look at produce in a new light. In high school, my minimum-wage job was working in

the produce section and eating fresh means more than just going to subway.

Class 7: Side Dishes and Meal Planning

Introduction

Not everything you eat can be chicken breasts and steak. Side dishes bring variety to the table. Soup and salad meals contrast temperatures, flavors, textures, and even phases of matter, with the cool salad contrasting with the piping hot soup. Less extreme are the potatoes that play a supporting role to a tender steak.

If you want to eat more veggies, side dishes are a great way to introduce more vegetables to your daily routine. Starches such as orzo, couscous, rice, noodles, and mashed potatoes can be covered with the sauce or gravy of the meal and echo the entree while making the meal more filling.

What to eat with what you want to eat

Setting everything on the table at the same time is the goal, and the great Julia Child has this to say this about the folly of trying to keep green beans warm “It is fatal to their color, texture, and taste if they are overcooked, or if they are allowed to sit around over heat for more than a few minutes after they are ready to be eaten.”

What Julia means is that green beans should be cooked and served immediately. This is the hard part about all side dishes. When multitasking, it can be too easy to lose sight of one dish over another. Proper execution side dishes begin with recipe and ingredient selection⁹⁴, continues with preparation⁹⁵, and finishes with juggling the [various cooking methods⁹⁶

⁹⁴Class 2

⁹⁵Class 3

⁹⁶Class 1 - I was getting to the point here where I felt there was enough distance between the posts in the early part of the year and these mid-year posts that I wanted to point people towards the early posts for catch-up purposes.

Selecting Side Dishes

Picking your side dishes begins with your grocery list. I generally try not to go to the grocery store more than once a week except to get the essentials if they run out. One of the most fundamental enablers for cooking food is the ability to have it available when you want to cook it. Early on, I would try to plan meals for the week and get ingredients to support that. Making a shopping list and sticking to it is a discipline that will reward you in the long run. If every piece of food you buy has a spot in a recipe, you will have less unused food cluttering your pantry and vegetable drawer.

Sometimes I will pick a side dish that goes well with a dish, such as roasted potatoes which pair very well with roasted chicken, but other times I will select a side dish because it is in season or on sale. When trying to tie a side dish to the main course, borrowing a couple of key flavors and including them in every dish can help tie an entire meal together. If I am braising chicken with some white wine, I will saute green beans with some garlic, butter, salt, and that same white wine. If I need to stretch the meal with a starch, I'll make a white wine risotto and spreading some garlic, white wine, and parmesan across all the dishes will bring cohesion and get your guests to actually believe that you know what you're doing.

Unless you force it by spreading flavors and ingredients across an entire meal, knowing which side dish will pair with your meat only comes with experience. Whenever someone asks "What cookbooks do you like" my go to answer is always *Mastering the Art of French Cooking*⁹⁷. With almost every ingredient (and the book is organized by ingredient), there are suggestions for traditional pairings and complementary recipes.

Another source and repository of complementary ingredients are food cultures. What I'm talking about are cultural menus. The Polish, Irish, Koreans, Italians, French, Ethiopian, and other ethnic groups have had centuries or millennia to figure out what worked well as a whole meal. As new ingredients became available, like when tomatoes were introduced to the old world, the Italians found that its acidity worked well with fish. Another example of this is in the ingredient list of a Cuban meal of black beans and rice, and *ropa vieja*⁹⁸. Beef was first domesticated in the middle east, rice in Asia or Africa, and these ingredients were combined with black beans, tomatoes, spices and peppers from the Americas.

Another source of inspiration for side dishes can be contrast. If you have a savory, warm main dish, contrasting that with a chilled vegetable dish may be a welcome choice on all but the coldest nights. Think about how pickles or coleslaw bring contrasting flavors and textures to hamburgers and BBQ sandwiches and expand that out to a whole meal. A crunchy, tangy vegetable dish can offset a tender cut of meat and heighten the whole experience.

I have friends with many different dietary restrictions, from allergies to re-

⁹⁷Have you noticed by now? These classes draw heavily from the foundations laid by Julia Child and Alton Brown.

⁹⁸"Old Clothes" or "Old Pants" as an old coworker used to say.

religious reasons to ethical preferences and I can use side dishes to serve them an entire meal. Some dishes like baked mac and cheese or grilled eggplant can pull double duty as a side dish for your carnivores and act as an entree for vegetarians.

Preparing your various ingredients

Short of improperly salting or cooking dishes, not preparing everything at the start of a cooking session is one of the biggest mistakes made by beginning cooks. If you are hoping to trim and blanch your green beans to cook them as your meat is resting, the meat will be cold by the time the beans are done. It is also far too easy to lose track of a simmering or baking dish while cutting other ingredients.

Review all of your ingredients and do as much pre-preparation as you can. If you aren't confident in your knife skills, prepare your ingredients ahead of time so all you have to do is throw them into a pan or pot and apply heat before serving.

The French have a discipline of *Mise en Place*⁹⁹ where every ingredient that goes into a dish is measured and arranged so it can be introduced to the recipe at the proper time and in the proper amount. Also, if you misread teaspoons for tablespoons, it is far easier to remeasure into another bowl than it is into a dish when you add three times the recommended amount.

I don't go nearly that far as cleaning up a collection of tiny glass bowls at the end of a meal can be too much for the benefit. Instead, what I'll do is prepare my meat ahead of time and apply a marinade or rub for added flavor. Pro tip: If you freeze your meats, thaw them in a brine as they'll thaw faster and be brined when they're thawed.

If I have to chop vegetables for several recipes at once, I'll prepare the total amount at once and then divide it out into separate bowls or plates for addition. This prep work saves me the stress of having to worry about chopping and stirring at the same time.

Cooking multiple dishes

When selecting dishes, remember the limitations of your kitchen. If you only have one oven, you can't really roast potatoes at 400 if you're braising a pot roast at 250. Often times, you can adjust cook times for recipes that call for oven temperatures that cook within 25 degrees of each other, but any more than that will usually call for a different recipe. I don't sweat fudging temperatures like that as I've rented apartments with ovens that would swing 50 degrees when the element was on or not and the food still came out fine.

⁹⁹I have begun to believe that "Mise en Place" is french for "Screw the person who has to do the dishes".

BONUS TIP: MAKING A CHEESE SAUCE DISHES AND MEAL PLANNING

Try not to saute more than two dishes at the same time as your two hands may not be up to the challenge of stirring/moving/flipping more than two pans at the same time. For most beginners, boiling/simmering, sauteing, and roasting can feel like it's almost too much.

Make use of timers (and helpers) to keep from losing track of dishes and practice cooking dishes at least once before you cook for company to adjust the recipe to your kitchen and preferences as you may find that your cuts of roast beef may take a half hour more or less than the recipe calls for in your kitchen.

Cooking multiple dishes at once will take an understanding of periods of time when one recipe won't require any active cooking. Roast and Potatoes are easy to cook together as the potatoes can be peeled, cubed, and boiled while the roast is cooking, assuming the piece of meat will spend more than 45-60 minutes in the oven. The Potatoes can be mashed and finished while the roast is resting, and they can cool while the cook turns their attention to making a gravy from the pan drippings.

Bonus Tip: Making a Cheese Sauce

Being able to make a homemade cheese sauce is like a super power¹⁰⁰. You can take any vegetable and make it palatable for picky eaters, you can make a homemade nacho cheese sauce to go with shredded chicken and everything else for garbage pail nachos, and you can make any pot of noodles into mac and cheese.

Over medium heat, melt 1 tbsp of butter until it is melted and the butter is bubbling, add in 1tbsp of all purpose flour and stir constantly until the flour smells vaguely nutty and turns a light brown or blond color. Slowly add 3/4th cup of milk and bring to a boil. Simmer until thickened to a saucy consistency. Add cheese of your choice until the desired flavor, amount, and consistency is achieved and remove from heat before the cheese is entirely melted. This can be set aside for up to a half hour to be combined with other dishes as they are ready for a good saucing.

Recipes

Alright! The recipe section is back¹⁰¹. I am going to incorporate the recipe section into the discussion section from now on since the goal of this is to broaden the recipes that you can cook. Practice these recipes at least once because I'll revisit them during next month's whole meal preparation post. Just like basketball players break the game into individual drills for practice (shooting, passing, layups, etc), beginning cooks might want to break their meals down into their individual dishes and practice those. Also, it is a bad idea to cook

¹⁰⁰I am Cheeseman!

¹⁰¹Did you miss it?

risotto for the first time when you are worrying about other dishes that are in the oven or still need to be cooked.

Starch Sides:

Risotto

Risotto is one of the comfort foods that makes a regular appearance in our house. Risotto itself is another dish that can be a one pot meal¹⁰², and just like the other one pot meals in that post, we can use a formula to dress it up for any occasion.

(Softening Aromatic + Risotto Rice + Flavor Liquid + Stock + lots of stirring) / low heat = Risotto.

Start off by softening an aromatic such as mushrooms, onions, or whatever you have on hand. Whatever veggie you put in should be cooked and/or browned before you add the rice since the risotto process may not be enough.

You can toast your rice for extra flavor or skip that step if you need to, add a flavoring liquid like beer or wine. Heat up some stock and keep adding a ladle full at a time as the rice absorbs the liquid and stir every minute or so for the 20-30 minutes it takes to cook. Hit it at the end with some fresh green herbs and melt some cheese in if that's your thing. Salt and pepper to taste.

This is a white wine risotto that makes use of parmesan at the end. Solid recipe that can be an entree if you like. Cook it a few times over the next month for practice. This dish is really simple once you get the basics down, it only looks fancy.

<http://cooking.nytimes.com/recipes/1012583-fresh-herb-risotto>

Spaetzle

Spaetzle is a German dish that lies somewhere between a dumpling and a noodle. It was a favorite in my house growing up and is made by creating something suspiciously like a very loose dumpling batter and then passing it through a colander or cheese grater into boiling water. I make mine in batches and toss the noodles in butter and parsley as they come out of the pot. You can use these any time that you would serve mashed potatoes (except for shepherds pie... wait, on second thought, that sounds delicious).

Bring a large stock pot full of salted water to a boil. Mix together flour, salt, eggs, milk, and sometimes baking powder into a loose batter. Either using spoons to cut the batter in for larger dumplings or a colander for skinnier noodles, get the batter into the boiling water and cook for 3-4 minutes.

<http://www.foodnetwork.com/recipes/tyler-florence/spaetzle-recipe.html>

¹⁰²Class 4

Roasted Potatoes

Even though this is a baked dish, I prefer red potatoes when cubing and roasting. Budget 35-45 minutes of oven time for this dish and they can be prepped ahead of time. You can cut small red potatoes in half or cube them into fork sized pieces. Sometimes I'll cut them into wedges. The smaller pieces will cook faster than the halves but take more work up front. Toss the potatoes with some olive oil, 1 tsp kosher salt, 1 tsp garlic powder, $\frac{1}{4}$ tsp black pepper, 1 tsp paprika, and 1 tsp rosemary. You can toss with a few tbsp of balsamic vinegar as well.

Roast in the oven at 350 for an hour, 400 for 45 minutes, or 450 for 20-25 minutes. If you are roasting an entree, potatoes can cook alongside it at almost any temperature.

<http://www.epicurious.com/recipes/food/views/balsamic-roasted-potato-wedges-231370>

Veggie Sides:**Wilted Spinach**

This is one of those dishes that is meant to be whipped up at the last moment. If it sits for too long, the spinach will overcook. I have also made spinach by heating a medium skillet over medium heat and tossing the spinach in the juices left over from a roast or tossing it in the gravy.

Wilted spinach pretty much made by coating fresh spinach in a flavorful liquid that offsets the little bit of bitter in the leafy greens. Think of it like a hot salad¹⁰³.

<http://www.foodnetwork.com/recipes/rachael-ray/wilted-spinach-with-butter-and-wine-recipe.html>

Roasted Asparagus

Asparagus is another one of my favorite vegetables because it can be cooked any way that I have free. I can take the small and delicate tips and toss them into a pouch with some dry vermouth and parmesan cheese and roast them in the oven, or I can take the larger stalks and peel them.

Prepare your asparagus the way you like to make it tender. Either snap off the woody ends or peel them, toss them with olive oil, salt and pepper before roasting them in a 400F oven, and then drizzle with a little bit of vinegar as they are coming out of the oven.

<http://allrecipes.com/recipe/222631/roasted-asparagus-with-balsamic-vinegar/>

Sauteed Cabbage

Do you eat cabbage? If not, you should, this stuff can be delicious. It is very popular in french and German cuisines and if your dish is either inspired by those traditions or has a cream sauce, sauteed cabbage is another easy dish that pairs well.

¹⁰³Class 6

Prepare the cabbage by cutting it in half and slicing the leaves away from the core. Slice into thin strips as if you were making a coleslaw. Melt some butter in a large saute pan or 12" cast iron skillet over medium high heat. Add the cabbage, 1 ½ tsp salt and a few grinds of pepper and saute for 10-15 minutes, until tender. Serve warm but it can sit off of the heat for up to a half hour while you finish the rest of your meal.

<http://www.foodnetwork.com/recipes/ina-garten/sauteed-cabbage-recipe.html>

Conclusion

I hope that I have inspired you to rethink your side dishes. Start thinking about how you pair your dishes and if you “serve something with every meal”, ask yourself why you do that and if you can change it up.

Class 8: Cooking Whole Meals - Bringing it All Together

Introduction

Ever try to rub your head and pat your belly? Doing two things at once is very tricky and cooking is no exception. The secret to cooking a whole meal at once is breaking each recipe into its component tasks and fitting all of those together with the other dishes being made. Each recipe can be broken into multiple parts, generally there is what goes into the recipe (ingredients), how much (measurements), what type (prep/chop), what it will be cooked in (pots and pans), and how to cook it. Sometimes steps may be revisited, such as when blanching and shocking green beans, or when cooked ingredients are added to other dishes.

Greater than the sum of its parts

There is more that goes into a meal than just the ingredients, but somehow I get more out of it than the ingredients that I add.

It All Starts With What You Have

Something that those restaurant rescue shows do to streamline kitchen operations is that they reduce the number of recipes offered. Sounds great, right? Be a better cook by learning less? The good news is that you are not a restaurant (if you are, skip this section, I do not wish to confuse the many fine eating establishments who are following this series) and you can offer a wide variety of dishes. The reason restaurants benefit from this is because offering many dishes every day leads to spoilage, increases menu complexity, takes up storage space, and generally confuses things.

What you can learn from this is that proper meal planning combined with a stocked pantry can reduce food spoilage, make food prep easier, and reduce

shopping time.

Yes, I know I said “stocked pantry” and it sounds like “You don’t have to buy potatoes if you have potatoes” but what I really mean is “For things that take a few months to go bad, keep them around and use them often.” If you’ll notice, most of my recipes usually are seasoned with Garlic, Salt, Basil, Oregano, Marjoram, Thyme, Sage, Parsley, Rosemary, or Pepper. I like those flavors and having a few dried herbs that I use often means that my spice cabinet doesn’t grow bigger than it should. I do keep a few extra bottles for when I cook recipes from other cuisines. If I cooked more Mexican, Cuban, African, or Asian foods, I would stock their staple spices instead of ones from the french/German/English/Italian/Jewish (ok, American) traditions.

I take a similar approach to cooking liquids. Go back through these classes, most of the liquids mentioned are soy sauce, wine, broth, olive oil (does butter count?), water, balsamic or red wine vinegar, and cream (or sometimes milk). There are a ton of liquids that you could add to dishes, but if you don’t drink red wine, how many dishes can you make with a bottle before it turns to vinegar? This is the class where you start defining your style. If you don’t like cooking with wine, don’t use it. If soy sauce isn’t your thing, skip it. If you love cooking with fish sauce or sofrito, do that. Make your kitchen your own, and one way of personalizing your cooking style is by experimenting with your favorite ingredients.

When you have a stocked pantry, your shopping list will only consist of topping off your essentials as they run out while focusing on main ingredients for your dishes. If a main ingredient is on sale or in season, don’t be afraid to cook it multiple ways. I probably have 20-30 different ways of making chicken breasts simply because I get bored of them but need to cook them anyway. It’s like Bubba from Forrest Gump talking about all the different ways you can cook shrimp. “Like I was sayin, chicken is the fruit of the land, you can bake it, grill it, saute it, fry it, stir fry it, roast it, boil it, shred it, barbecue it, kebab it, grind it, microwave it. . .” Change out the flavors, toppings, marinades or rubs, and sides, and you can turn it into the chameleon of your kitchen.

I had typed a few different things that filled out the rest of this section but they all felt too prescriptive¹⁰⁴. The gist of what I was digging at is this: For ingredients that you can buy a single meal’s amount for, make sure it fits the recipe you have planned. For ingredients that may span several meals, make sure you have several recipes to make use of those ingredients. It all boils down to not buying a sack of potatoes and only using one.

Approaching the Meal

Last month, I talked about linking dishes together. There are certain pairings that go really well, like mushrooms and spinach and cheese, but other times you can link meals together with a common ingredient. This can be via a

¹⁰⁴I actually rewrote this section like three times and I kept deleting it because it felt like a tutorial on how to shop at a grocery store. I understand that you are here to learn, but not to be talked down to.

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substitution or addition, like adding a little bit of white wine if a dish calls for a vinegar or by swapping out water for that same white wine if there isn't a danger of overpowering the flavors. Once you have your recipes picked out, try to find a way to make all the recipes fit together in your kitchen.

Break each recipe into its steps and fit all of the steps back together so that you're only in one phase at a time. There's the buying phase (generally happens at the grocery store), but you have a list of needs from all of the recipes you have picked out. Then, before you start cooking, there's the prep phase and the cooking phase. The prep phase will involve chopping ingredients, marinating or putting a rub on the meat, getting out the various bits of hardware you're going to be using, and finally cooking everything.

Get out all of your ingredients and prepare them. If ingredients need to be chopped, it's best to do it without the stress of worrying about over-browning your pork chops. Most ingredients come in some sort of container or plastic bag and I will re-use that to hold the chopped, sliced, or marinated ingredients. This pre-prep also helps plan substitutions if you happen to be out of something since you'll still be planning rather than during the actual cooking time.

Another preparation technique that I tend to hammer in these classes is practicing individual dishes ahead of time. It is not ideal to be figuring out the intricacies of arborio rice while you are sweating onions for another dish. Instead, with practice, you'll know that the best time to sweat onions is either before you start risotto, or while it is simmering, depending on what you want those onions to do next. Practice helps you figure out the timing steps.

When it comes to timing, I set an arbitrary time (usually 5-15 minutes prior to actual dinner time) that I set as my goal and walk stuff backwards from there. 2 minutes prior to arbitrary time, I'll pull the greenbeans out of the fridge, toss with balsamic vinegar, and put in a dish. 5 Minutes prior to arbitrary time, I'll have the meat sliced and pull the potatoes out of the oven (And the potatoes will have to go into the oven 45 minutes before that). 10 minutes prior to Arbitrary Time, I'll have the gravy simmering. 15 minutes prior to arbitrary time, I'll have the meat done and resting (and in order to have the meat done by then, it will need to go into the oven 25-35 minutes before that, so meat and potatoes will have to be ready to go into the oven at the same time...). Once you have a rough schedule of events working backwards, reverse the steps and you have a whole meal recipe. Eventually it becomes second nature, but nothing is easy when you're just starting out and this is a skill that nobody ever told me I needed to have.

Recipes

Alright! For this month, I am going to have entire meals here. The side dishes will be compatible with the main course and everything should jive. The topic discussion was a bit shorter this month because I'm going to talk you through some example meal preps.

Like anything, cooking multiple dishes takes practice. Until you pick up

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that sixth sense for when things need to happen that experienced cooks seem to have, planning and ordering your steps ahead of time will help greatly.

I will also highlight modifications to the recipes that I might make on the fly and what is written here may not reflect the recipe card 100%.

Stove-top Dinner

These recipes should go well together. Let's figure out how to cook them all as a meal:

1. Come up with a combined shopping list of what you have on hand and what you would need to buy. 2. Identify the equipment you'll need beforehand (pots/pans, measuring cups and spoons, and food movement equipment). 3. Identify all the preparation steps and list what needs to happen to each ingredient prior to cooking. 4. Fit all the recipes together so that they all finish cooking at roughly the same time.

<http://www.epicurious.com/recipes/food/views/smothered-pork-chops-with-mushrooms-356030>

<http://www.foodnetwork.com/recipes/ina-garten/sauteed-cabbage-recipe.html>

<http://www.foodnetwork.com/recipes/tyler-florence/spaetzle-recipe.html>

Shopping List

Let's begin by breaking these three recipes down and combining them:

For the pork, you are going to need the following ingredients:

- 2 pounds bone-in pork shoulder chops
- 1/3 cup all-purpose flour
- 3 tablespoons vegetable oil, divided
- 1 large onion, halved and sliced
- 1/2 pound fresh cremini mushrooms, sliced
- 1 teaspoon chopped rosemary
- 1 cup water

For the cabbage, it's just:

- 1 small head white cabbage, including outer green leaves (2 1/2 pounds)
- 2 tablespoons unsalted butter
- 1 1/2 teaspoons kosher salt
- 1/2 teaspoon freshly ground black pepper

For the spaetzle, it's:

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- 1 cup all-purpose flour
- 1 teaspoon salt
- 1/2 teaspoon ground pepper
- 1/2 teaspoon ground nutmeg
- 2 large eggs
- 1/4 cup milk
- 3 tablespoons unsalted butter
- 2 tablespoons minced fresh chives

Now let's figure out what we do and don't have on hand.

Stuff you probably don't have on hand all the time:

- 2 pounds bone-in pork shoulder chops
- 1/2 pound fresh cremini mushrooms, sliced
- 1 teaspoon chopped rosemary (I can't keep fresh on hand, so fresh usually goes into this category)
- 1 small head white cabbage, including outer green leaves (2 1/2 pounds)
- 2 tablespoons minced fresh chives (though this is a garnish and may be optional, you can replace with dried parsley flakes if you don't want to get chives just for this)

And now it's time for stuff that you probably have on hand:

- 1/3 cup all-purpose flour
- 3 tablespoons vegetable oil, divided
- 3 tablespoons unsalted butter
- 1 large onion, halved and sliced (I always keep onions or leeks, shallots, and fresh garlic on hand since they can sit on the counter top for a month or so and I use them with almost every meal)
- Water (from the tap)
- 2 tablespoons unsalted butter
- 3 teaspoons kosher salt (begin combining amounts)
- 1 teaspoon freshly ground black pepper
- 1 cup all-purpose flour

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- 1/2 teaspoon ground nutmeg
- 2 large eggs
- 1/4 cup milk

While shopping for this meal seems daunting, you probably have more than 2/3rds of the ingredients on hand already if you have access to a stocked pantry and only need to get the pork chops, mushrooms, fresh rosemary and chives, and cabbage. Don't forget to buy more milk, I'm always running out of milk in my house.

Equipment:

Let's start with the measuring stuff since we'll use that first. I'm seeing a lot of TSP, TBSP, 1/2TSP and other such measures, so break out your measuring spoons. Most sets come with a ring to keep them all attached and I find that works best for the spoons since it's often easier to find one massive combo-spoon than it is 4 little spoons. I still separate the cups though. I am also seeing dry and liquid measures. A liquid measure is just a measuring cup with the lines so that you can measure and pour. The dry measure is an individual cup that can be used as a scoop and have its top scraped off with a knife. We'll need a 1/3 cup measure, and a liquid measure that can measure volumes up to 1 cup.

In total, measuring spoon set, 1/3c dry measure, 1 cup liquid measure, 1 cup dry measure.

When we run down the recipes, we can pull out the various bits and pieces of pots, pans, tongs, bowls, spatulas, and other stuff. I tend to ignore knives for since I pull knives from the block, hone them with the steel, do the knife thing, wash them off, and put them back as I use them. They aren't something that I need to get out, they are always out and then cleaned and put back.

The pork calls for a 12-inch heavy skillet, usually something stainless steel or cast iron will work here. It doesn't say, but you'll need a bowl or plate to dredge the pork in. It also says to simmer covered, so we'll need a fitting lid. For the cabbage, we'll need a large saute pan or heavy bottomed pot. Think something 10-12 inches across and a few inches deep. Nonstick can work, but size is probably more important than surface since we'll only be cooking it at a simmer over medium high heat. The spaetzle is a bit more involved. We are making a batter so we'll need to mix wet and dry ingredients with a mixing bowl for each. We'll be cooking 3 quarts of water so a 6 qt pot will probably be best, but 4-5 will work too. Once you fish the spaetzle out, you'll need to put it somewhere, I prefer a ceramic casserole dish for this. To add to the complexity, we'll be forcing the spaetzle dough through a colander or cheese grater into the boiling water.

In Total: For pots, pans, and bowls, the final tally is 12 inch heavy skillet with lid, large saute pan, 6qt pot, 2 mixing bowls, a serving casserole dish, and a colander or cheese grater.

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To move everything around, we'll need tongs to move the pork, a spatula or or wooden spoon to cook the onion and mushrooms. The cabbage needs a spoon for stirring and moving around. The spaetzle needs mixing stuff (fork, spoon, whisk, etc), a spatula to force the dough through the colander, and a slotted spoon to fish the cooked spaetzle out of the pot.

In total: 1 set of tongs, 2 wooden or plastic spoons, 1 spatula, 1 fork and whisk, and a slotted spoon.

Steps

Again, it's time to combine the various steps of the recipes together so they fit. Ideally, you want to chop and mix everything before you turn on a burner. Exceptions to this may be stuff like preheating the oven or setting large pots of water to boil.

Prep steps for pork - Slice Mushrooms, chop onion, chop rosemary. Pat pork dry, season, and dredge in flour.

Prep steps for cabbage - Wash then cut cabbage in half and then slice into strips and discard the core.

Prep steps for spaetzle - Bring a large pot of salted water to a boil, then reduce to simmer. Mix together flour, salt, pepper, and nutmeg. In another bowl, whisk together eggs and milk. Add the wet to the dry and combine into a dough with as little mixing as possible (too much mixing results in chewy noodles from too much gluten). Let rest for 10-15 minutes.

Cooking time:

We won't know when we'll have time to do everything until we look at the timing.

Timing for pork - heat oil and brown dredged pork chops over medium high heat. About 3-4 (maybe as much as 8) minutes per batch, 2-3 batches. Browning step will take 10-20 minutes. Then you need to brown onions and mushrooms, another 7 minutes. Followed up with 30 minutes of simmering. Total cook time: 47-57 minutes, or round it to 45 minutes to an hour. This will probably be the first thing to go on the stove. Make use of that 30 minute simmering window to make the other two dishes. Prep time, 5-10 minutes, cooking time, 45 minutes -1 hour.

Timing for Cabbage - Melt butter and add cabbage, let saute over medium high heat for 10-15 minutes. Total time, prep time 5-10 minutes (depending on your knife skills) cooking time 10-15 minutes.

Timing for spaetzle - Because this involves batches and because it involves boiling until done, and because everyone's colander is different, this is a practice first recipe. See what how it works for you. I have a large, wide pan and can usually manage to cook it up in 3 batches. Each batch will take 3-4 minutes to cook and a minute to scoop and reset, so about 15-20 minutes total. Note that the recipe calls for browning of the spaetzle in a large skillet for 2-3 minutes, this is optional but if you don't want to get another pan dirty, once you move the cabbage out to a serving dish, you can wipe the pan with a paper towel and

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brown in that pan if you like. I am going to skip the browning step. Prep time: 5 minutes of mixing, 10-15 minutes of resting, 15-20 minutes of cooking.

Ok, so let's look at what we need to prepare and what we need to cook and when.

The pork needs an hour of cooking time, the spaetzle needs a 15-20 minutes for cooking time, and the cabbage need 10-15 minutes of cooking time. Working backwards, we'll need to have the cabbage chopped and in a pan 15 minutes before dinner, we'll need to have the spaetzle in a pan 20 minutes before dinner, and rested for 15 minutes before that, but during that time, we'll be browning the pork chops and mushrooms/onions, so let's just put all the chopping and mixing before the pork chops go into the oil. If there is a brief period of time where things are cooking, just take a breather and have a drink. You don't have to be the model of kitchen efficiency.

So, we'll take the total steps and work them like this:

Prep Steps

Set 3 quarts of salted water to boil on the stove top, reduce to a simmer or turn off once it boils depending on how quick it boiled.

Chop the onion and slice the mushrooms, set aside. Slice the cabbage and set aside. Chop some rosemary and set aside.

Mix together 1 c flour, 1tsp salt, $\frac{1}{2}$ tsp ground pepper, $\frac{1}{2}$ tsp ground nutmeg. Whisk together 2 large eggs, 1/2c milk and combine with the dry into a dough. Set aside and let rest.

Fill a plate with $\frac{1}{3}$ c flour. Pat the pork chops dry, season with 1 tsp salt and $\frac{1}{2}$ tsp pepper, then dredge in flour.

Cooking Steps

Heat 1-2 tbsp of oil in a 12 inch heavy skillet and brown the pork chops in batches. They don't have to be cooked all the way through, just cooked enough to turn the flour coating golden brown and delicious in places. about 3-4 minutes per batch.

Add 2 tbsp of oil to the skillet and brown the mushrooms and onions. Use the wooden spoon to scrape up any brown bits to prevent burning. Add 1 cup of water and the rosemary. Add pork chops and bring to a simmer for 30 minutes.

Boom, hard part of the pork chops is over. Is your water simmering? If you brought it to a boil, it shouldn't take too long to come back. Once the pork has been simmering for 10 of its 30 minutes, add 1/3rd or so of your batter to the colander. Push the dough through the holes into the water.

While the first batch of spaetzle is cooking, put your cabbage pot on a burner and melt some butter over med-high heat. Add the cabbage. Your first batch of spaetzle should be ready, remove with a slotted spoon to that casserole and toss with some butter and chives or dried parsley.

Add your second batch of spaetzle and stir the cabbage.

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Keep cooking the spaetzle and stirring the cabbage. Keep tossing the spaetzle with butter. You can keep it warm in the oven if you like. Turn the heat off of the cabbage when it is lightly browned and tender. It will sit and wait for the other dishes.

Pull the pork and serve.

Boom, dinner is done. Simple, huh?

Roast, Boil, Saute

I like this meal because you only have to focus on one thing at a time and it is all tied together with some fresh herbs and white wine.

Entree: <http://simply-delicious-food.com/chicken-baked-white-wine-garlic-herbs/>

Starch Side: <http://cooking.nytimes.com/recipes/1012583-fresh-herb-risotto>

Veggie Side: <http://www.foodnetwork.com/recipes/rachael-ray/wilted-spinach-with-butter-and.html>

Timing:

Prep time will vary based on how confident you are in your knife skills, 10-20 minutes. Preheat oven during this time since my electric oven would take an unreasonably long time to preheat to 400.

The chicken will take 35 minutes of total cook time. It starts with 10 minutes of browning and 20-25 minutes of baking. It will need to rest for 5-10 minutes afterwards.

The risotto will take about 35-45 minutes total and is best served immediately after finishing.

The spinach goes quick, 5 minutes or so. Do this right before plating while the chicken is resting and the risotto is finishing up.

Combined Shopping List: (Note, this is a dinner for 4 adults, buy less for less people)

Star Ingredients: (Stuff that you may not have on hand all the time)

- 8 chicken thighs (skin on and bone in)
- 1 bottle white wine, such as pinot grigio or sauvignon blanc (you'll need 1 cup, $\frac{1}{2}$ cup and $\frac{1}{2}$ cup)
- 3 cups large handful mixed fresh herbs, chopped (Whatever you can get your hands on, sometimes just a bunch of parsley and some dried herbs will do the trick. If I was in a pinch, I'd probably grab a fresh bunch of parsley or arugula, some fresh basil leaves, and use dried sage and thyme, maxing out at about 1-2 tsp per dish).
- 1 $\frac{1}{2}$ cups arborio or carnaroli rice
- 1 1/2 pounds triple washed spinach, coarsely chopped, tough stems removed (this is a lot, I usually serve less).

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Kitchen Essentials: (Stuff that I always have on hand and you might consider having around, too)

- 9 garlic cloves, peeled and finely chopped (pretty much one bulb of garlic, peeled and minced)
- 7 cups chicken stock or vegetable stock
- $\frac{2}{3}$ cup finely chopped onion or leek (1 onion and/or leek)
- 1 cup freshly grated Parmesan
- 1 lemon (you'll need 1tbsp juice and 1tsp zest)
- splash of cream (approximately 50-100ml) though sometimes I'll use soft goat cheese added to the sauce at the end instead

Pantry Raid: (Stuff almost everybody has on hand)

- olive oil
- butter
- Salt, preferably kosher salt, to taste
- Freshly ground pepper

Equipment:

Have these handy so that you don't have to hunt around for them.

Measuring - Grab a 1 cup liquid measure, 1 cup and $\frac{1}{2}$ cup dry measure, and your measuring spoons set.

Pots and Pans - You will need a heavy stove-top safe baking dish capable of holding the chicken thighs without overcrowding the pan, 1 large sauce pan to hold up to 7 cups of stock, 1 12" skillet (nonstick or steel), and 1 medium skillet.

Food Movement - You'll also need 1 set of tongs for browning the chicken, 1 ladle for spooning $\frac{1}{2}$ cup measures of broth into the risotto, 1 spoon for stirring the risotto and browning the onions, and tongs or a wooden spoon for the spinach.

Steps:

Prep Stage Get out the chicken thighs, toss with 2 tsp olive oil, 1tsp salt, and some dried sage/thyme/parsley. Let sit in a bowl, gallon ziplock baggie, or even the Styrofoam tray it came in. If frozen, thaw in a brine of either soy sauce or $\frac{1}{2}$ c white wine and 2tbsp salt.

Preheat your oven to 400F or 200C. The reason we are choosing this temperature is because we want the chicken dish to crisp up even more. Food begins

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turning brown and crisping at 325F-350F, so we want to increase the temperature so that the skin crisps up and stays crisp before the inside overcooks and dries out.

Get out your veggie cutting board, Chop your fresh herbs and set aside. It's ok to re-use the clear plastic produce bags that you put the fresh herbs in if they won't fit on the cutting board. If you went the leek route, chop your leek and place in a bowl of cold water to wash off the sand. Otherwise, chop your onion and set aside. Peel and chop your garlic and set aside. Slice your lemon in half.

Wash your knife, soap it off, towel it dry, and put it in your knife block. You are done with your knife. Well, except for your butter knife. You'll need that for portioning butter. Also, keep out your measuring spoons (TSP, TBSP, and 1/2TSP measures)

Grate your parmesan into a bowl. Using your finest grater or a lemon zester, zest your lemon and set aside.

Right before moving the chicken thighs to the pot, wipe the rub/marinade off because dried herbs can add a mealy mouthfeel (almost as if your meat was covered in a powder of some sort).

Cooking Stage Get out a heavy roasting pan that can be used on the stove. Hopefully it should be big enough to give the thighs some breathing room all around. I would recommend enameled cast iron or steel as this will involve braising in wine which is very acidic and may do eerie things to regular cast iron or aluminum. Skip non-stick or ceramic casseroles for this as they aren't stove-top to oven friendly.

Melt a few tbsp of butter or add some olive oil to the pan over medium high heat. Brown the chicken thighs for about 5 minutes per side, moving constantly early on to prevent sticking, or letting it stick and trusting it to release when it is appropriately browned (depending on your confidence in your cooking surface, the older and more scratched a surface is, the less likely it is to cleanly release).

Move the chicken thighs to the side of the pan or remove to another dish if you feel like getting that dirty and toss in 3 cloves of chopped garlic (about 1 ½ heaping tsp) and let simmer for under a minute until fragrant. Pour in 1 cup of the white wine as soon as you can smell the garlic to prevent burning, toss in half of your chopped herbs and sprinkle a tsp of the dried herbs around. Stir in the heavy cream or add some soft goat cheese if you like. Spread the chicken and move the pan into the oven, setting an oven thermometer to beep when the chicken reaches 150-165°F (depending on doneness preferences). Optionally, you can sprinkle some grated parmesan over the chicken so the entree echoes the risotto.

For the Risotto, get out a large sauce pan and pour your stock into it. You don't have to open and pour all 7 cups at once if you think you may not use it all. The goal is to have a warm reservoir that you can keep ladling into the risotto. Bring to a simmer.

Drain your chopped leek if you have one. In a wide, heavy skillet or saucepan,

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non-stick or steel, doesn't have to be oven safe, melt some butter over medium heat and add your onion or leek. Add 1/2tsp of salt. Do not brown but cook until tender. About 3 minutes. Add your rice and 3 cloves worth of garlic. Stir constantly the majority turn clearish. Add 1/2 C of your wine and stir until the wine is absorbed.

Begin ladling your warm chicken broth or vegetable stock into the rice, 1 ladle at a time, stirring every few minutes. It doesn't have to be a constant stir, but you can't leave the kitchen for anything longer than a pee break (and wash your hands!) while making risotto.

Keep adjusting the heat so that you see the tiny bubbles of simmering and not the big bubbles of boiling during this time. If you don't apply enough heat, the risotto won't cook fast enough and will take an hour and a half. If you add too much heat, well, bad things happen.

When your chicken beeps, if it is too early, remove it from the oven and cover with foil to rest and stay warm. Otherwise, just remove it from the oven and turn the oven off.

When the risotto is no longer crunchy and almost at the nice and tender stage (about 5 minutes left, knowing how much time is left only comes with practice), get out a medium skillet. It's time for the spinach.

Melt 3 tbsp butter over medium heat. Add about 2 cloves worth of your garlic (if you chopped 8 cloves, this should be about a quarter of what you started with) and brown. Add your spinach to the pan in bunches otherwise it won't all fit. As it wilts down, continue tossing and adding more. While adding spinach, don't forget to give the risotto a stir every so often. Add a few pinches of salt and pepper and pour in 1/2c of the wine. Let the wine cook down for a minute or two while you shift your attention. Sprinkle with some parmesan if that's your thing.

Risotto time, add 1 final ladleful of broth, stir in the rest of your greens, 1 tsp lemon zest, 1 tbsp lemon juice, and the parmesan. Stir and remove from heat. Your risotto is ready to plate.

Put everything on plates and then eat everything! Congrats! You have made a fancy meal!

Roast, Roast, Roast

This meal is nice if you have a large oven since the meal pretty much involves preparing the dishes and then placing into an oven. The potato dish calls for an oven at 450 and the other two dishes call for a 400^of oven. Potato wedges can be cooked at 400^o and the original recipe calls for a 20 minute cook time but that may stretch to 35-40 minutes when altered. You can adjust either by giving the wedges a quick cooking time in the microwave or cooking longer at a lower temperature. I like baking like this on cold winter days since having the oven on for an hour will warm up the kitchen and make things nice and toasty.

<http://allrecipes.com/recipe/222631/roasted-asparagus-with-balsamic-vinegar/>

<http://www.epicurious.com/recipes/food/views/roast-pork-loin-with-garlic-and-rosemary-10>

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<http://www.foodnetwork.com/recipes/nancy-fuller/roasted-russet-wedges-with-balsamic-vinegar.html>

Timing:

Again, prep time will vary based on how confident you are in your knife skills, 5-10 minutes. Preheat oven during this time since my electric oven would take an unreasonably long time to preheat to 400.

The meat will cook for about 55 minutes, but depending on the size could vary from a half hour to an hour and fifteen minutes. It will have to go into the oven first and be turned after 30 minutes of cooking time. The potatoes will take about 45 minutes to roast, and the asparagus only need 15 minutes in the oven.

Combined Shopping List: (Note, this is a dinner for 6 adults, buy less for less people)

Star Ingredients: (Stuff that you may not have on hand all the time)

- 3 Large Russet Potatoes
- 5 teaspoons chopped fresh rosemary or 2 teaspoons dried
- 1 2 1/2-pound boneless pork loin roast, well trimmed
- 2 pounds fresh asparagus, trimmed

Kitchen Essentials: (Stuff that I always have on hand and you might consider having around, too)

- 1 cup balsamic vinegar
- 4 large garlic cloves, pressed
- 1/2 cup grated parmesan

Pantry Raid: (Stuff almost everybody has on hand)

- 1tsp Black Pepper
- 1 cup olive oil
- 2 tbsp Kosher Salt
- 2 teaspoons garlic salt
- 3 tablespoons sugar

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Equipment:

Measuring - Get your measuring spoons out and get out a 2 cup liquid measure.

Pots and Pans - 2-3 baking sheets and a roasting pan. The potatoes and asparagus will need to be spread out to cook evenly so make sure that the cooking sheet or roasting pan is big enough to keep everything from piling up, touching is OK, but layers are not. The pork will cook in a roasting pan that you can use to make gravy, so heavy metal or enameled cast iron. While the oven is still cool, arrange the racks so that your oven can comfortably fit all three pans with good airflow all around.

Food Movement - Tongs or Spatulas to deal with hot food. You'll be flipping the potatoes and pork while they are still hot so whatever you feel comfortable using for that.

Steps

Prep Stage Preheat oven to 400°F.

Peel and mince the 4 cloves of garlic, peel the rosemary leaves off of the stems and chop until you have about 5 tbsp (just under a third of a cup) of chopped rosemary.

Chop the potatoes into wedges and place into a bowl. Toss with 1/2 cup olive oil, 1/2 cup balsamic vinegar, 1 tbsp salt, 1/8tsp black pepper (more to taste if you like) and 2 tsp of the chopped rosemary. Place on cookie sheet(s). Again, touching is OK, layers are not.

Prep your asparagus tips and wash. Toss with 2tbsp olive oil, a pinch of salt, and 1/8 tsp ground black pepper and place on a cookie sheet.

Line your roasting pan with foil if you like, I may or may not do this depending on the cooking vessel. It makes for easy cleanup but makes gravy making harder.

In another small bowl, combine the rest of the rosemary, the minced garlic, 1 1/2 tsp salt (I would usually go with a full tbsp on this, so the amount of salt is negotiable here) , 1/2 tsp black pepper, and 1tbsp olive oil. Rub the pork down with this mix and place into the roasting pan, fat side down.

Cooking Stage Put the pork in the oven, set a timer for 15 minutes.

When the timer goes off, put the potatoes in the oven. Set the timer for another 15 minutes.

Flip the pork fat side up and insert an oven thermometer to read the deepest part of the pork. Set it to beep when it hits 155°F. Toss the wedges. Set timer for another 15 minutes.

If your pork has cooked fast, it may be done and can be pulled out, if not, make room for the asparagus. Keep an eye on the pork and you may want to think about adding the asparagus when the oven hits 120°F. If your pork is still below 120°F, you may need to delay the asparagus a little since the pork is going to cook longer than the estimated 55 minutes. Test the potatoes with a fork. They should be almost done since they've been in the oven for a half hour

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now. Keep an eye on them, they should be ready in about 10-15 minutes (this is where the practice portion comes in, sub my estimates for your actual times).

When you put the asparagus in, put the timer on for a final 15-20 minutes. While the asparagus is cooking, you should be pulling the potatoes and meat from the oven when they are done.

The meat will need to rest on a cutting board under a loosely molded layer of foil for about 10 minutes. While the pork is resting, make gravy from the drippings. (Not going to describe that since there are so many differing opinions about gravy but this method is my favorite since it cooks up in about 5 minutes, you can use broth, stock, or even some balsamic vinegar to add liquid to your gravy if there aren't enough drippings).

Pull the potatoes and plate. When the asparagus is lightly browned and tender, pull from the oven, sprinkle with 3tbsp of balsamic vinegar, and plate.

Much less involved than the first one, eh?

Conclusion

Sure, planning and cooking entire meals seem daunting when you lay out everything like this, but think of it like learning music well enough to play a solo. You start off learning the fundamentals of timing and technique by following simple music. As your skills improve, you can begin to follow more advanced musical pieces. Eventually, you don't need to practice before hand and can sight-read most pieces of music fairly well. After that, you can improvise and create your own music on the fly.

Cooking is the same way, start off with deliberate practice to learn the fundamentals and timing, and as your skills improve, you'll be able to "sight read" recipes and cook them on the fly or begin making your own recipes and having them turn out like you imagined they would.

Class 9 - Oven Lovin'

Introduction

In January's class, I talked briefly about baking and roasting, since then I've touched on the various things that you can do with the hotbox, but this month's class will shine a spotlight on the humble oven. Cooking on the stove-top or grill is flashy with steam and smoke swirling around your sizzling meats, but many people take their ovens for granted. They throw in frozen pizza without a second thought as to why the box says 450^o, they bake cookies, or they forget about it and overcook the roast.

Remember, you have to understand what's going in your oven if you don't want to get burned.

Monthly Topic - Lovin your Oven

Magical Food Box

Ovens are a magical mystery to most. You punch in a very precise feeling temperature (mine adjusts in increments of 5 degrees), wait a few minutes for it to preheat, and put in your food for an amount specified by someone who was hundreds of miles away, years in the past, and who has never seen your oven. Surprisingly, it works. Your roast isn't burned, your veggies aren't raw, and dinner comes out the way you hoped. Your oven may be 20 years old and have radical temperature swings, it may be a convection oven with an auto-convert feature, it may be gas, and it may be electric. Somehow, it works just the same. Why is that? More magic.

An oven will have anywhere between 3 and 8 cubic feet of space and relies on a heating element to heat between 3 and 8 cubic feet of air to a temperature of your choice. Sometimes it will have a fan to push this .24-.64 pounds of heated air¹⁰⁵ around your food to aid in heat transfer. Ovens without fans still cook primarily via convection, but convection ovens have a fan which speeds things up. Convection is where you heat up air or liquid that surrounds something that it transfers its heat to. This is directly contrasted with conduction where heat

¹⁰⁵Keep in mind, a pint of boiling water weighs a pound, but is only at 212^oF.

transfers from the heating element to a pan to the food and radiation where the light itself transfers heat like the sun heats your skin on a cool but sunny day. You can use radiation in your oven, but that tends to involve the broiler.

So really, why does the oven work so well? Despite there being so many newer methods like sous vide, pressure cookers, and microwaving do we still rely so heavily on the hot box? You can chop a chicken breast into strips and saute it in a wok in under a minute, you can grill a steak in under 10, but heating up the same pieces of meat in the oven would take a half hour. You can load a crock pot with ingredients and forget about it. There are easier and quicker ways of heating up food, so why do we rely on the oven so much?

We keep the oven around because it is gentle. The oven can brown and roast in one step. It can bring an entire turkey up to a relatively even temperature, and it can put a chewy crust on bread without overcooking the interior. Most things don't get soggy in the oven like with a boil, they can brown unlike a sous vide or a steam, they heat evenly unlike a microwave, and it doesn't impart flavor like smoking.

Baking Temperatures

I worked with someone who used to be a line cook and he had a phrase that he would drop on occasion. "Golden Brown and Delicious. . . GBD!" What he was referring to was the byproduct of the Maillard reaction. When proteins, sugars, and starches are heated to about 320°F or higher, changes begin to happen. Bread crusts turn brown and chewy, the outsides of steaks crisp up, and sugar turns to caramel.

The problem is that you want the outside of your bread to be above 320°F but the inside should top out at around 200° to keep from being a loaf of toast. Meats are more dramatic because chicken begins to overcook when it hits 165°F and beef roasts with a red interior lose that red above 135-140°F. There are two approaches to get that difference, you can either brown on a stove and finish in a 300° oven, or you can cook at a higher temperature.

Have you ever wondered why different recipes call for different temperatures? There's reasons for that.

- 170°F - Keep warm. Most ovens bottom out here. This is warm enough that food will be kept out of the zone where bacteria can ruin food, but may eventually bring your entire dish up to 170 if you rely on this for too long. I pretty much use this to keep pancakes warm when I'm making breakfast.
- 200°- Low and slow. This is warm enough that it will heat up meat to a point where collagen melts and dissolves. Any liquid forced out of the meat fibers by overcooking will eventually be replaced by collagen which is why BBQ and pot roast meat is technically overcooked, but still juicy and tender. Sauces will begin to simmer but not boil so evaporation can be a problem but isn't a pressing one. I like this to do indoor BBQ before finishing on the grill with some wood chips. This is also a temperature

that a smoker can put out if you want to cook your meet as you add smoke flavor.

- 225-300°F - Slow Oven - The maillard reaction doesn't even begin to be a thing until 300-320°F. When a recipe calls for sub 300° oven temperatures, the goal will be to gently bring a dish up to temperature without any worries of browning or burning. Ovens cook by heating the air which heats the outside of the food. The outside of the food then transfers the heat to the inside of the food. Since materials can only transfer heat so fast, if you dump a lot of thermal energy into the outside of the food, it will heat up much faster than the inside of the food because it can't transfer the heat fast enough. Cooking in a cooler oven gives everything time to even out. The edges aren't overdone and crispy and the inside is heated through.
- 350-400°F - Moderate Oven - There's a reason most digital ovens default to 350°. Well, there's a few in that it is right in the middle and it takes about as many button presses to get to the minimum as it does the maximum, but the other reason is that 350° is a super handy temperature to cook food in. It is the Goldilocks zone for most foods and is low enough that the inside isn't raw but the outside doesn't burn. Because it's only 30-50° higher than the browning temperature, the outside will begin to brown and crisp up, but not as aggressively as higher temperatures. This is best for roasting meats and vegetables. If you want to try experimentation and the end result is a little brown and crispy on the outside while having the inside cooked to a "done" temperature, shoot for this temperature range.
- 400-450°F - Hot - Traditionally this range was used for baking bread. Bakers used to have a various set of tests that would tell them if their oven was in this range. Flour would turn black but not ignite and paper would darken but not catch flames. This is a temperature for baking crusty breads because the temperature outside the dough and inside is so extreme that the dough would form a crunchy, chewy crust and the inside would still be soft and fluffy. Any hotter than this and food can catch on fire.
- 450°F+ - Very hot - There are some foods that call for temperatures in this range. The one we are most familiar with is pizza. Traditionally, pizza has a very high water content and that water content acts as a buffer to keep the food from igniting. Pizza's shape works very well with these high temperatures because the heat doesn't have to travel very far and there's almost no "inside" to speak of. When the outside is done, it's all done.

You'll notice that I didn't specify exact temperatures here. When you set your oven for 375, you're really setting the heating element to turn on at 350° and off again at 390°. The oven will heat up to the top limit and begin cooling again. Food will spend around half its time above 375 and half its time below 375, but overall, it comes out just fine. Unless your oven's thermostat has a drift and

your oven's 400° is my 350°, you don't need to get it professionally calibrated. If your chocolate chip cookies come out fine when you follow the recipe on the back of the bag, your oven is doing well. Some chefs and folks who prefer to have an illusion of control will tell you to pick up an oven thermometer or get your oven calibrated regularly. Doing this may be interesting and make you feel like you have more control, but your roast will come out pretty much exactly the same unless your oven is out of line (to hot or too cool on average). A temperature sweep is ok and compensated for in modern recipes. If you want more control, invest in a digital meat thermometer since you're cooking food, not air.

Broiling

My first experience with a broiler was an accident, not a terribly happy one but at least nobody got hurt. When I was a kid, I put a cake in to bake but set the oven knob to "broil" instead. The top was burned and the bottom was still raw.

For those of you who don't regularly stick your head in the oven, you may or may not have noticed that there's a separate heating element on the roof of your oven. Some older electric ovens have this element turn on in parallel with the bottom element to heat the oven up quicker, but most ovens bake with the bottom element and broil with the top one.

When you use the broiler, it is recommended that you keep the oven door propped open, there will either be a hitch on the hinge so that the oven door will stay partially open if you set it, or you can wad up some tin foil and jam it in between the door and the oven to keep the door open. This is to keep the air in the oven from heating up too much. It seems counter-intuitive until you realize that your oven actually offers two methods of cooking. The baking/convection cooking method relies on heating up air to heat up food, and broiling/radiation cooking method uses light to cook food. Light can heat up things. It's why lasers burn things and why you can feel the sun shining on you.

The broiler is like an upside down grill, really. You can use a broiler to cook things that you could grill, and the same rules apply. The outsides will heat up much faster than the insides and it is possible to "grill" a steak to medium under a broiler. Where the broiler really shines is that because it's like an upside down grill, it can cook things that you couldn't possibly grill, like browning the cheese on french onion soups or putting a quick brown on dishes that you wouldn't want to flip into a saute pan.

I'm sure there's a variety of cake that you can broil, but I'm too afraid to try.

Roasting and Baking

You take some potatoes, put them into the oven, what comes out? Roasted potatoes or baked potatoes? A question for the ages. I've seen it said that baking involves taking something that didn't have structure, like a dough or batter, putting it into the oven, and relying on the heating process to give it

structure while roasted items have structure going in and still have structure coming out. I've also seen it written that baking involves cooking uncovered and roasting involves covered dishes. I've also seen people talk about where the fat is, like roasted veggies have fat brushed on the outside while baked biscuits have fat mixed in. I've also seen the paradoxical answer that roasting puts a brown on the dish and baking does not, and while this is true for roasted vs baked potatoes, it breaks down in the face of baked bread.

The terms are almost interchangeable in my opinion and you will see me switching the two so that I don't have to say roast too many times in a paragraph¹⁰⁶.

What is important is that you are baking and roasting the right way for your dish. If you want to gently heat something, cook it covered to stop convection from directly cooking the food and by transferring the heat to the cooking vessel which then cooks via conduction and secondary convection (and a tiny bit of black body radiation for you physics fans).

If you are cooking a piece of meat so that the outside crisps up and browns, it will need to spend at least some time exposed to 350° or hotter air. Many recipes have a 2 step roast where the oven is ramped up to a higher temperature to brown the meat and then is allowed to cool to a lower temperature to gently cook the rest. The same goes for uncovering during the last 10 minutes, by removing the lid, the oven air can directly conduct heat to the food and will crisp the top.

Anything hotter than 450° is for specially shaped foods, long and thin or wide and flat, like asparagus or pizza.

Honorary Mention: Cooking with a water bath

Way back in January, I spoke about braising. This is where you cook some food partially submerged in some sort of flavorful liquid. The food cooks via convection in the hot liquid and via steam above. It can be done in the oven or on the stove-top and leads to some really tasty dishes.

There is another method of cooking in liquid in the oven known as a water bath. Instead of using the liquid to aid heat transfer, a water bath takes advantage of water's ability to absorb a great deal of heat and then evenly transfer that heat to items within.

If you were to combine 8 separated egg yolks with 1/2c sugar in a bowl, heat 2 cups of heavy cream until almost simmering, then slowly introduce the hot cream into the egg yolk, tsp at a time for the first ¼ cup while stirring rapidly, then pouring the rest of the yolk into the cream, add ½ tsp vanilla extract, and then strain and pour into ramekins and put into a 250°F oven for 1 hour, it would be a disaster. The outsides would be overcooked to the point that the

¹⁰⁶It's a nasty habit that I picked up from middle-school English. My teacher used to give me bad marks if I re-used a word too much, so even now I'll tend to rotate between a bunch of less precise and accurate terms just so that I don't have to reuse the exact term over and over again.

proteins bunched up and dumped their water and you would have a lump of custard floating in a grainy soup.

If you performed all of the steps as listed, and then put the ramekins into a rectangular pan, and then poured boiling water into the pan so that it came up to the level of the custard inside the ramekins (being careful not to get water into custard), and then baked at 250° for 1 hour, everything would cook much more evenly. The outsides wouldn't be dramatically overcooked because the water bath acts as a buffer to slowly absorb heat and bring the ramekins and custard up to temperature. These are pretty good on their own, but after refrigerating for 8 hours, but you can also sprinkle with some sugar, expose to open flame (or your broiler if you wish), and melt the sugar on top to turn into creme brulee.

I do want to give a shout-out to the cookingforengineers.com site for being there while I was learning to cook. The rest of the recipes are equally well thought out and approach recipes with systematic approach.

Videos

I realize I haven't really been talking much about recipes or food prep this month, so I'm just going to gather up some videos of things that I enjoy making in the oven.

Enjoy!

Make some chocolate chip cookies: <https://www.YouTube.com/watch?v=RsgFBvUjfC4>

Make some roast potatoes <https://www.YouTube.com/watch?v=a8JbYORJmMg>. Yeah, I know you're sick of seeing me talk about roasting potatoes, but they make a weekly appearance because they are easy, cheap, and can be altered to complement just about anything.

Have you ever baked pasta? Of course you have! Do it some more! These are the types of meals that I make when I'm lazy. Make a sauce, cook some pasta, and combine with cheese, and bake for 30 minutes at 350°F. Baked tortellini: <http://www.foodnetwork.com/videos/cheesy-baked-tortellini-0223220.html>.

Roast a chicken: https://www.YouTube.com/watch?v=_DPgFoDiTvY

Roast some veggies: <https://www.YouTube.com/watch?v=bsGPjEw5-Jk>

Roast some Acorn Squash: <https://www.YouTube.com/watch?v=f6C9aKvW5c4>

When you're done with that, or if you're into pumpkin carving, roast the seeds: <https://www.YouTube.com/watch?v=YlVettl1feo>. I season mine with garlic salt and soy sauce.

Conclusion

I hope that I have inspired you to take a second look at that mysterious, magical hotbox in your kitchen. It's fall, and fall foods love the oven, so you should too.

Class 10: Comfort Food

Author's Note: I do want to point out that this is the section I am least happy with. I feel like Comfort Food is too big a category and I got overwhelmed by it and made the resulting post too narrow. This section lacks a clear focus or direction and I am most disappointed with it. Rather than try to fix it, I'll present it here in its original (re-formatted) form.

Introduction

What is comfort food? I honestly don't know. Comfort food is something different to each person. It is an idea of food that makes you feel better for eating it. It makes you feel human when you are sick, exhausted, or stressed out, and you make it for those in your life who may be in need of a little help. It's what we make for relatives, neighbors, and friends when they are going through tough times, and it's what we make on dreary fall days when winter begins to etch away at the happiness of summer.

I can't definitively say what comfort food is because it's is an idea. What I can do is teach you how to make some food what will warm you to your very core. I do want to put a disclaimer out there that traditional comfort food is unhealthy, and there's biological reasons for that. Our brains are wired to respond to starches, fats, and foods that it perceives as being high calorie. We are creatures of evolution.

I would like to come up with some criteria that draw a loose ring around types of food that fall into the traditional comfort foods. Comfort foods are generally easy to transport because you may need to drive it across town. They also make for good leftovers because reheating something from the fridge is sometimes all that some people can muster. In general, comfort foods tend to be easy to eat for when people are feeling under the weather. As an added bonus, they can sooth the scratchy throats that come with a change in weather.

Rather than try to gather up all of the foods that meet these criteria and mean something to people, I'll talk about four categories of food that can bring a little happiness to the folks in your life: casseroles, stews and soups, fried food, and pasta dishes. There is even one dish that I make once a decade or so which manages to stretch across all 4: Eggplant Parm.

Monthly Topic - Four Comfortable Categories

Casseroles

It is impossible to imagine a Midwestern or southern potluck that doesn't feature at least three or four of these rectangular recipes. While some casseroles are just a series of mixed ingredients baked into a consistency little firmer than a stew, other casseroles involve layers, construction, pre-cooked ingredients, and multi-stage cooking. The defining feature of a casserole isn't its ingredients, preparation, or presentation, but instead lies in its cooking vessel. The wide, flat, rectangular pan can hold dozens of servings while allowing heat to move through the wide top and bottom at a fairly even pace. It is possible to layer in structure as the casserole is baked and not simmered or stirred and the top of the dish can be covered to prevent burning or broiled at the end to encourage a bit of browning. The sides of the dish rise to hold liquid in and the usual cooking temperatures encourage longer cooking times which can soften starches and break down collagen in meats which make for a softer consistency. Their wide and flat cooking containers won't tip over, they have enough structure to not slosh around, and are best served directly from the pan.

When selecting ingredients, there are four big ones that you should look for when selecting a casserole recipe. The first is the bulk ingredient. In lasagna, it's pasta, in green bean casserole, it's green beans, in au gratin, it's potatoes. If you'll indulge me and let me dump in shepherd's pie, it's chopped/minced leftover meat and veggies. These should make up the main volume of the dish and everything else should fit in between or on top of these bits. They should be selected so as to not break down into liquid when cooked and provide something solid to bite into. They can be mixed or layered but the goal is to allow a single bite to contain every flavor in the dish.

The next component is the liquid. Adding some liquid will add flavor, allow all the flavors to mingle, and encourage even cooking. Water takes energy to heat up and can distribute that energy to food and can act as a buffer, enabling everything in the dish to cook to about the same temperature throughout. Often added to the liquid, or maybe released from the bulk ingredients, is a thickener. This will most often be some sort of starch such as flour or cornstarch, but could be released from rice grains or other ingredients. Thickening the liquid to a gravy consistency will keep the casserole from running into a puddle while being served. Most 50's housewives discovered that cream of mushroom or cream of chicken condensed soups had their own thickeners and could pull double duty. Shepherd's pie also makes use of pre-thickened gravy to keep the flavorful liquid clinging to the meat and veggies and not running off to the far corners of the round plate.

And the cherry on top is the topping. Some casseroles are served bald, but many make use of a topping to contrast visually, texturally, and flavor-wise with the the rest of the dish. A baked ziti dish gets some chewiness from melted mozz on top, green bean casserole gets some crunch from fried onions, and the toothy bulk ingredients of shepherd's pie are complemented by smooth

mashed potatoes. Put them all together, bake at a temperature below maillard's reaction point of 325-350° to heat and cook everything evenly, then uncover and bake at high heat or subject to a broiler to brown the top. Cover with foil and travel across town.

This is a recipe that came in a church's community cookbook and has been a special occasion dish in our house since the earliest days of my childhood.

- 1 (2 pound) package frozen diced hash browns
- 1 stick margarine or butter
- 1 cup onion, chopped
- 8 ounces shredded low-fat cheddar cheese
- 1 can cream of chicken soup
- 1 teaspoon garlic salt
- 1 pint sour cream

Topping:

- 2 cups Corn Flakes
- 1/2 stick margarine

Mix all ingredients except potatoes (and topping) together. Combine with potatoes and place in a greased baking dish. Combine melted margarine with corn flakes and top casserole. Bake uncovered at 350° for 1 1/2 hours.

Stews and Soups

Chunk up food into bite-sized bits, immerse in a flavorful liquid, and serve warm? Sounds great! A soup can have bite-sized pieces, or you can break out your stick blender and puree everything into a bisque. While not as transport friendly in their original pan, the thermos has been safely moving warm soup for decades. Not going to talk much about soups and stews here, I feel like I've said everything that I can say about them. However, try this pumpkin soup recipe, it's easy and tasty.

- 2 tbsp butter
- 8 oz mushrooms, thinly sliced
- 1/2 cup chopped onion
- 2 tbsp all purpose flour
- 1/2 to 1 tsp curry powder
- 3 cups canned chicken broth

- 2 cups canned pumpkin
- 1 Tbsp Honey
- 1/2 tsp salt
- 1/4 tsp ground nutmeg
- 1/4 tsp pepper
- 1 12oz can evaporated milk
- Optional serving garnishes
- sour cream
- fresh chives

Melt butter in large sauce pan, then add mushrooms and onions. Cook until tender (for canned, add the onions a good 3-5 minutes before you add the canned mushrooms as canned mushrooms are already tender). Stir in flour and curry powder. Gradually add chicken broth. Cook over heat stirring constantly until mixture thickens. (meaning it becomes more of a sauce and less of chicken broth roughly 10 minutes). Stir in pumpkin and next 4 ingredients. Reduce heat and simmer 10 minutes. Stirring occasionally. Stir in evaporated milk; cook until warmed through. Serve right away with garnish of 1 tbsp sour cream, sprinkled on top with chopped chives.

Fried Food

Recently, I have discovered that my fondue pot is no longer a unitasker. It is no longer just a useless lump the 364 days a year that I don't make fondue. The revelation came when I was flipping through the recipe book and found that there are oil fondue recipes and that the pot can heat oil up to 350°. I have found that using the fondue pot has lead to much more consistent and even results than my previous stove-top methods. I also like that I don't have to worry about my gas burner sparking off a grease fire if there's a spill or boil-over.

Fried food is great, maybe not health wise, but in moderation, fried food can make a great comfort food. Though literature is beginning to reverse position on fats so fried food with a modest or no coating may be a recommended food in moderation now that the demonization of starch is beginning to take hold. Who knows, but in the meantime, frying food can make for tasty meals and certain foods, like fried chicken, make for amazing leftovers.

My newest frying obsession is a fried chicken recipe that I have stolen from Japan. I came across the recipe when trying to find dishes that would fit well with a bento picnic which seemed appropriate as we were to spend the morning out in nature looking for wild pokemon. It is fairly simple and is good fresh out of the fryer, or chilled as cold chicken leftovers.

This dish is called Karaage. Take some boneless skinless chicken thighs (breasts dry out in this application, so embrace the cheaper meat) and marinade in soy sauce for an hour or so. Cut into cubes 1/2" per side, toss in corn meal, and fry in batches until done in 350° oil. It isn't as good sauteed so expect to use an inch or so of oil to deep fry them. I'll make enough to serve as an entree for dinner and then save the rest for meals and snacks.

Here's the full recipe but I'll just marinade in soy sauce if I'm feeling lazy: <http://www.japanesecooking101.com/karaage-recipe/>

Pasta Dishes

Everyone loves pasta, right? Bring a large pot of salted water to boil, add noodles, and strain when soft. Super easy, but what can really elevate a beginner's pasta to comfort food greatness is when it is used as the base ingredient for a casserole. While I was tempted to combine pasta with casseroles, I do feel that a baked pasta dish does need some special considerations.

The type of pasta is important. The shape of the pasta creates a contrast and some shapes grab and hold some sauces better while others may shun a liquid coating and be better served by more flavorful sauces. When it comes to baking, the shape is very important. A baked pasta can be filled like tortellini, but what differentiates a tortellini from a ravioli for baking use is that the ring shape provides some structure for sauce or air to fill. Spaghetti, ravioli, and bowtie pasta can be compressed flat or packed so that sauce and air is pushed out. Ziti, macaroni, and other tube noodles provide spaces for sauce to flow into and have air holes to keep everything from getting too dense.

When it comes to baking pasta, choice of sauce is important. Most recipes for mac and cheese begin with a bechemel sauce which begin by making a roux of butter and flour, and slowly stirring in milk. In my opinion, this makes a fine macaroni and cheese base but can come out grainy if overcooked. The proteins in the milk can denature and clump together, leading to a mealy instead of smooth textured sauce. When I make mac and cheese, I'll skip the baking stage and simply broil the breadcrumb topping before serving. The noodles and sauce are both cooked on the stove and if you omit the egg from the cheese sauce, the only reason to cook baked mac and cheese in the oven is to keep from being dishonest with the title. It will lead to a different texture, but if you add the right ratio of cheese to the sauce, it will all work out fine in the end. Baked pasta can be as simple as boiling ziti to al dente, tossing with sauce, topping with cheese, and baking for 20 minutes, or it can be lasagna with browned meats and veggies, home made sauce, layered with cheese and home made noodles.

However, the recipe that I am going to list is not baked, it is not meant as a comfort food for a group of people, and it's definitely not traditional. Once you try it though, you'll see what I'm talking about. In a pot, bring 1 cup water to a boil, add 1-2 oz of grated romano cheese, 2 tbsp sun dried tomato paste (from a tube, yes it's awesome), and cut several fresh basil leaves into strips with scissors. Take 1 package ramen, toss the flavor packet (or save it, I use it for other purposes), stirring the noodles constantly, boil on high for several

minutes until the water reduces to a cheesy sauce. serves 1.

The One Dish to Unite them All

This is a dish that I dislike making. It's not something that I enjoy the process of cooking and I'm not a particular fan of the end product, but that hearty endorsement aside, it is a dish that is requested by my family since it makes them very happy. I try to limit its creation to once every few years just for my own sanity.

Start off by peeling two eggplants and then using a mandoline with a 1/16" setting (usually the thickest), safely cut it into slices. Layer on a plate and sprinkle each layer with salt. Set aside to let the salt draw out some liquid and flavor the eggplant.

In a sauce pan, add 2 #30 cans of crushed tomatoes, add 1tsp dried basil, 2tsp dried onions, and 2tsp-2tbsp salt (to taste! This is important), and 2tbsp olive oil. Stir over low heat until simmering. In another bowl, mix together 16oz of ricotta cheese, 2-4 cloves minced garlic, and 1 egg.

Preheat oven to 350°

In a dutch oven or heavy bottomed pan, add 1/2" of olive oil and heat to the 350°-360° range. Shake the excess liquid off of each eggplant slice and dredge in flour. Fry until the edges of the eggplant are brown. Oil a casserole pan and pour some sauce to cover the bottom. Layer the fried eggplant slices on top of that, spoon over a thin layer of the cheese, add another layer of eggplant, and cover with a layer of sauce. Keep repeating alternating sauce and cheese as the eggplant will be thin enough that you won't notice the alternating layer. Top with a layer of sauce and some shredded mozz. Bake covered for 20-45 minutes and uncovered for 15.

You may not end up using the entire batch of spaghetti sauce but you will have to stretch the ricotta. I like to serve this over pasta and drizzle with extra sauce.

Conclusion

Shorter post this month, but I hope that I have inspired you to get into the fall spirit and make some of your own comfort foods.

Class 11: Thanksgiving

Introduction

Everyone knows the story of the first Thanksgiving, right? In 1578, Martin Frobisher was searching for the northwest passage and had a run of bad luck. They stopped being pummeled by bad fortune long enough to take a break to cook up some comfort food and have a meal of Thanksgiving. Oh, not the first Thanksgiving you were thinking of?

129 years after Columbus sailed the ocean blue, the Pilgrims broke bread with the Wampanoag People to celebrate a peace treaty that would last for 50 years. They had made it in the new world and could cultivate new world crops. For the next 200 years, the date of Thanksgiving would vary from colony to colony but what unified the holiday was that it was a celebration of food, family, and success.

Even though Thanksgiving feels like a distinctly US holiday, it was a common theme a few centuries ago to cook up a special meal and give thanks for the successful harvest that would get people through the dark winter. Though because not every year had a good harvest, there wasn't a guarantee of a thanksgiving meal. This informal nature continued for centuries and some countries codified a fall holiday into their national holidays.

The fare was usually representative of the harvest or local animals so an North American turkey replaced the traditional goose of England. Both birds grew fat towards the end of the year after snacking on the fruits of summer and fall which would put them both as fall/early winter meals. This is a New World Holiday which blends native North American ingredients with continental sensibilities. Corn is baked into biscuits, Native Turkeys are roasted and stuffed, squash and pumpkin are roasted and baked into pies, and old world fruits and vegetables mingle with their new world counterparts.

Hopefully you have been following along for the past 10 months and have been practicing your cooking skills. If you have, you should be ready to tackle Thanksgiving. If you aren't here in the US, bare with me as I share my favorite national holiday with you.

Thanksgiving

Planning

Thanksgiving is a meal to be prepared for. It is OK to buy a frozen turkey, it is great if you invite a bunch of friends and family, and you are welcome to push yourself as a cook. However, take this time leading up to the holiday to plan when you'll be buying what.

Even the day of will require a great deal of planning, most of us only have one oven which will be occupied by a bird for the majority of the day. In order to fit this, the side dishes have to be cooked around it, either before or after the bird is in the oven, or on the stove top.

When picking out casseroles, try to pick something that can be cooked or reheated in the 30-40 minutes that a full sized turkey will take. If you can fit it, some dishes can be cooked or roasted alongside the bird in the oven, but may need to be browned under the broiler once the bird comes out of the oven.

Food Safety - The Stuffing Controversy

Thanksgiving is a controversial holiday. I'm not going to get into anything political or cultural, but I will say that stuffing has been at the center of a food controversy due to the rise of Salmonella infection.

Normally, turkeys hunted in the wild would be salmonella free. They would be riddled with parasites and other problems that occur in nature but bringing the meat up to the low 130/140's as you cook it to "done" of 155-175 solves all of those problems. If one bird gets sick with salmonella in nature, it dies or gets better on its own and the infection doesn't spread too far. If a farm bird get sick, then the infection can spread to the rest of the birds in the pen. In a perfect world, even if a farm bird got infected, that infection would not spread to the muscle since salmonella infections are usually contained to the GI tract. However, the factory farming method is far from perfect and one infection can spread to an entire processing line. Rinsing the meat isn't a fix, brining it isn't a fix, the only fix is bringing the entire bird up to 148°F for 1 minute or more.

If you load up a bird with bread and vegetables while it is raw, that stuffing will soak up the potentially salmonella laden juices and refuse to come up to the 148°F safe temp before the rest of the bird has heated from the outside up to 155-175. Think about it, you are taking the hollow bird and turning it into a solid ball. The oven can only heat up the outside and that heat has to travel all the way through the bird and through the stuffing to make the stuffing safe. I don't have figures for turkey¹⁰⁷, but in 2005, 17% of chickens were infected with salmonella but that rate has dropped to 1 in 25 chickens more recently. Even if turkeys have a 1-in-25 chance of being a one way ticket to a no-expense-paid vacation in your bathroom, you can go years of eating soggy, under cooked stuffing before you're impacted. But when you're impacted, it's an impact...

¹⁰⁷Well, I do now, it's 1.7%.

So, what can be done? People love shoving bits of bread and vegetables into their bird and I'm not going to stop you. Instead, prepare and cook the stuffing in the oven alongside the bird and then load the salmonella-free-bird with the hot cooked stuffing at the end of the baking cycle. If the inside of your bird has come up to the safe temp, and you load it full of salmonella free stuffing, that stuffing will be there to absorb the tasty turkey juices as it rests.

Also, leaving the stuffing out lets you loosely stuff the cavity with herbs or lemon slices that you can discard once they have finished flavoring the meat. A little bit of ingenuity can turn a food safety heartache into your secret personal touch.

Main Course: Turkey

If 148° is within sight of the 165°F finish line, let's talk about the starting line. Turkeys are big birds. They are traditionally only sold whole during a few months a year, and people don't cook them all the time. If you have a turkey sandwich, you're not buying a whole bird to break it down into lunch meat. Instead, you're buying your holiday bird like the rest of us: Frozen and Whole.

Traditionally, when planning a regular meal for people, $\frac{1}{2}$ pound of meat per person is the goal. However, there are a few confounding issues at play when it comes to turkey day. The first is that turkeys have bones (which add to the weight but don't fill plates) and may come packed with other bits that that also come with live turkeys. This means that as a rough minimum estimate, aim for 1 pound per person. This will be enough to get people out of your house with enough meat for a single meal. In other households, people overshoot the mark by an extra pound per person to ensure that there are leftovers for turkey sandwiches, turkey salad, turkey gravy, turkey hash, turkey A La King, or gallons of turkey soup.

Picking out a turkey is not an exact science, if you get too little, people may be disappointed but there will be plenty of sides to keep everyone happy, if you get too big (and prepare accordingly), you will have leftovers and doggie bags for your guests. To make things even murkier, a 16 pound turkey will have more than twice the meat of an 8 pound turkey since the bones aren't twice the size and more of the mass will be meat. This means that a turkey formula that works for a family of four can rapidly push into the "drowning in turkey leftovers" syndrome when applied to a gathering of 16.

Alright, so you have somehow consulted the culinary gods and divined the proper weight of the bird which you want to buy, so what do these extra labels like "Self basting" or "kosher" or "free-range" mean?

Self Basting - Frozen birds are frozen. Self evident, right? Well, sort of, the important implication is that as water freezes, it forms into crystals which are sharper than glorious nippon steel katanas folded over 1000 times. These crystals can pop the cells which will lead to drier meat once thawed and cooked. In order to combat this, some turkey brands inject their birds with a brine and oil mixture that both increases the moisture content and adds its own flavor.

The cocktail increases the weight of the bird and masks the natural flavor. Some people like it.

Natural - Pretty much the opposite of self basting. Nothing is added to the bird during processing. It doesn't mean organic since a natural bird could have been fed antibiotics or filler during its life. If you want antibiotic free, look for organic.

Organic - Pretty much what you would think. No antibiotics or fillers when raising the birds and they are given access to a pesticide or fertilizer free environment to wander around while alive. Similar to free-range but not synonymous. Organic is free-range without hormones, pesticides, fertilizers, or antibiotics.

Kosher - These are birds that have been killed according to Kosher laws. They are then salted all over and left to drain. The process does pull liquid out so these birds will weigh less than natural birds and way way less than self basting birds. If you have your sights on a Kosher bird, I don't need to tell you that they are much saltier than regular turkeys so you'll have to be prepared to deal with that.

Great, so now you know how much and what kind of turkey to get and you thought ahead and picked up the bird a week or two early, what do you do now? The defrost cycle in your microwave isn't going to do the job and you certainly don't want to leave a raw bird on your counter for a few days. The goal is to bring the entire bird above the freezing point without crossing into a temperature zone where bacteria begin to wake up and do their thing. If you thaw on the counter, the skin and outsides will be room temperature and full of bacteria while the inside is still frozen.

Instead, you can thaw in the fridge or in cold water. If you are thawing in the fridge, budget days or up to a week to fully thaw a turkey. Shoot for 1 day for every 4 pounds or so. If that doesn't work for you, you can thaw in a brine for 30 minutes per pound. [original chart here](#)¹⁰⁸

¹⁰⁸This is the only image that I am including in this document because formatting a table was too hard.

Turkey Size	In the Refrigerator (Approximately 24 hours for every 4-5 lbs.)	In Cold Water (Approximately 30 minutes per lb.)
4 to 12 pounds	1 to 3 days	2 to 6 hours
12 to 16 pounds	3 to 4 days	6 to 8 hours
16 to 20 pounds	4 to 5 days	8 to 10 hours
20 to 24 pounds	5 to 6 days	10 to 12 hours

A brine can be as simple as salt and water, or it can have cider and citrus and all sorts of flavors.. There are a ton of brine recipes out there and if you are interested in brining, pick one and give it a whirl. If you have too little brine when you follow the recipe, make up another batch to top it off. Brining adds flavor and keeps the bird moist through the long cooking process. Even self basting and kosher birds could benefit from a brine if you want to infuse different flavors and draw off some salt or water content.

Even if you thaw in the fridge, you can finish thawing in the brine. Best case scenario, this will improve the flavor of the bird, make it more moist, and improve the meal. In a pinch, this will shave some time off if you were a day or two late in picking up the bird or pulling it out of the freezer.

Great! You now have a thawed and brined bird, what next? Well, it is time to stuff the cavity! I'm not talking about stuffing with stuffing, but if you want to add flavor, you can microwave a cup full of water with some sliced apple, sliced onion, cinnamon sticks, rosemary, and sage before shoving the whole bunch of aromatics into the cavity. This will season the inside and add additional layers of flavor. Towards the end of the cooking process, you can pull these out and discard to make room for more traditional stuffing.

When placing the bird into a roasting pan, either use a rack or trivet to get the bird up and out of the water, or you can rest it on past-their-prime root vegetables which will add to the flavor of the whole meal while they keep the bird's back from getting soggy. Tuck the wings under the back of the bird, and use a bit of butcher's twine to keep the legs together. The point of trussing the turkey is to keep the thin legs and wings from cooking much much faster than the rest of the bird and to force the bird into a shape that cooks evenly.

Remove the built in pop-up thermometer and replace it with an oven thermometer probe. Some people roast at 350 until done, others start at 500 for 30 minutes and then reduce to 350. This is a personal choice influenced by preparation. For brined birds, you will end up with crispier skin if you start off

at 500, but the 350 will be more gentle. A non-brined turkey will be drier if it is cooked uncovered. If you aren't planning on brining your bird, cover with foil and bake at 350. Remove the foil 45 minutes before the bird is done to allow the skin to brown.

When it comes to timing, if you start off at 500 for 30, plan for 2.5 hours at 350 for a 14-16 pound bird and a 15-20 minute rest before carving. A more general rule of thumb is 10-15 minutes per pound of thawed turkey at 350^o. Put your oven thermometer to read the deepest part of the turkey breast and set it for 158-161 (161 for smaller birds, 158 for larger). It will rest up to 165.

While the bird is resting, discard the root vegetables (if you used them), and begin to make a gravy. While the bird is cooking, take the heart, gizzards, and other parts to a sauce pan and simmer with some stock for 30 minutes. Make a roux in the bottom of the roasting pan, and add the stock to the roux juice and reduce to make a gravy.

Carving a turkey is similar to breaking apart a chicken. Once the turkey has roasted and rested, run your knife between the breast and the drumstick to cut the skin, pull it back to reveal the joint, cut through, and pull the leg off. From there, cut down the keel bone (bird's sternum) to cut the entire breast off. Once you have the meat off of the bird, you can slice it on a cutting board to help with presentation. Some people just cut slices off of the bird, but I have found that knives work better on cutting boards. Here's a video if you are a visual learner.

Hooray! You have just completed the week long journey from grocery store to Thanksgiving table! What's next?

As an aside, you could have fried or smoked the turkey, I will not be covering those methods.

Sides: Squash, Cranberry, Dressing

When it comes to a Turkey's best friend, after gravy, cranberry dressing is the next best thing. You can either get some from a can (which has the oddity of only having the opening side on the bottom so that the air bubble up top stays up top and makes it easier to release), or you can make some yourself. My family has a recipe which involves shredding the cranberries in a food processor, tossing with sugar and oranges, and hiding it in the back of the fridge for the month of November.

Regardless of your position on cranberry, fall is pumpkin and squash season. These gourds have been fall staples since they were domesticated. Most fall squashes can be treated the same way. They will be cut apart, have their seeds removed, and then be drizzled with oil and roasted, and then skinned. From there, they can be turned into casseroles, pies, shredded, or used as an ingredient in a plethora of fall dishes. I personally like using roasted pumpkin for pumpkin soup or pumpkin fritters. If you are looking for a dish to bring, it's usually a safe bet that nobody has made an acorn squash dish and you can bask in your fall originality. If you haven't read the recipes yet, I linked three recipes that

involve curry powder. There's just something about squash and curry powder that bring out the best in each other.

Everyone loves dressing, right? Even if you're not shoving it in the bird, you can still make enough for everyone. Like the turkey, dressing takes a little bit of do-ahead since it is best made from stale bread. The day before, shred some really good white bread into 1" cubes and bake at 250 for a half hour until they crisp up. Place in a large bowl and cover overnight. The morning of, cook 2 cups diced onion, 2 cups chopped celery, 8 ounces of sliced mushrooms, and 1/4c chopped fresh parsley in 2 tbsp of butter. Put the bread cubes in a crock pot and cover with the vegetable mixture, add about a tsp (give or take 1/2 tsp increments depending on preference) each of dried sage, marjoram, and thyme. Stir in enough broth to moisten (just over a third of the volume of your bread cubes, if you had 12 cups of bread, 4 1/2c of broth will work) and 1 egg. Cook on high for 45 minutes and on low for 4-8 hours, or until your stuffing reaches an internal temperature of 160. You can then transfer some into a resting bird to soak up the juices or put some in a pan in the 475 degree oven with the green beans to crisp up.

Casseroles

I talked briefly about casseroles in the last class, but one of the key strengths of a casserole is that it can be cooked alongside the turkey in a 350 degree oven if you can fit them in. They can be made ahead of time and they travel well.

Go ahead and give in, make your own green bean casserole. However, instead of adding a can of cream of mushroom soup, make your own mushroom gravy. Blanch some fresh green beans and while that is going on, add 2tbsp of butter to a hot skillet. Start sauteing some mushrooms for 4-5 minutes until they start giving up some liquid. Toss with some garlic and nutmeg, and sprinkle 2 tbsp of flour over the whole thing. Stir everything until the flour is coated in oil and then add 1 cup broth and simmer for 1 minute. Add a cup of half and half and then simmer for 6-8 minutes until the gravy is thick. Salt to taste and toss the blanched green beans. Top with a topping of your choice and bake in a 475 degree oven until bubbly, about 15 minutes. You can reduce the cooking temperature but the topping of your choice may go soggy. This is a dish that is best made while the turkey is resting and being carved.

Mashed Potatoes

I do want to touch briefly on mashed potatoes, if only because they do feature on nearly every thanksgiving table. Potato selection is important. Each type of potato has a different consistency and behaves differently from others when boiled and mashed. Red or new potatoes are too waxy and will make for gummy mashed potatoes. However, if you want to add some texture, they can make for an interesting contrast. If that doesn't interest you, save the waxy reds for the potato salad.

If you want the lightest, fluffiest potatoes, you have to go with a russet potato. They don't have a ton of flavor so you can go with an in-between like a Yukon gold. The Yukon gold is starchy enough to not weigh down your potatoes too much but adds that distinctive potato flavor. Once you have decided what kind of russet or Yukon gold potatoes you are going to buy, peel and quarter them, then boil them in salted water until they are tender. When they are tender, pull out of the water and mash any way that you like. The ratio that you want to follow for mashed potatoes are 2 pounds raw, 2 tbsp of butter, and 1 cup of milk. If they are too thick, you can add some milk or some of the starchy potato water. If they are too thin, melt in some cheese like Gouda. If they are just right, I'm sure you could find a reason to melt some cheese into your mashed potatoes. Season to taste.

Conclusion

I hope that you have been keeping up for the past 11 months and have been practicing along. By now, you should be able to put out a small thanksgiving spread. I wish you happy holidays and we'll wrap up the year with next month's class on cocktails and drinks.

Class 12: Cocktail Hour and Nightcaps

Welcome to the final class in this year long collaborative learning series! It has been a pleasure and a journey to organize my thoughts about cooking and commit them to words. Rather than have a wrap-up or conclusion post, I'll take a seat, kick off my shoes, and crack open a cold one.

Introduction

Civilization and alcohol have a long relationship. Early on, by controlling how mashes and worts went bad, people could preserve the calories from their grain harvest by making the the resulting beverage inhospitable to all microorganisms, even the yeast responsible for fermentation go dormant or die when the alcohol level gets too high.

America has had an especially rough relationship with alcohol and there have been several times that people's attitudes and uses for the drink have left their mark on history. Farmers in rural America would turn their corn harvest into whiskey and trade it as currency. An early great crisis was the Whiskey Rebellion where farmers revolted against a tax on distilling and trading in whiskey. They dusted off American Revolutionary anti-tax slogans and organized into a militia to abolish the new tax. Washington mustered an army and rode against them, putting down the revolution and cementing the federal government's right to tax its populace.

Later, the same churches that would administer a small dose of wine for communion and Eucharist also condoned its casual consumption. As a result of widespread social problems that were felt to be caused by excessive drinking, a puritanical prohibitionist movement took the nation, alcohol was outlawed for a decade which was a huge boost to organized crime which had only been doing local rackets prior to the huge cash influx that came from the illegal sale of alcohol.

Pop culture both idolizes and demonizes the stuff. For every portrayal of a smooth, martini drinking spy, there is an obnoxious drunk. Drinking at night clubs is both treated as a right of passage and as the precursor to a disease.

“Enjoy Responsibly” has become the motto that follows every ad about a party in a keg.

Foreign cultures are more extreme in their treatment of the stuff. Some European cultures have a long tradition of consuming wine with meals, and others have the same relationship with beer. This comes from a time when water was unsafe to drink, but juice from grapes weren't contaminated like water supplies were and beer was made with boiled water which rendered it safe. Most of Europe would consume several alcoholic beverages a day before tea, coffee, and proper sanitation became popular. Other cultures have outright banned it and selling, possessing it, and consuming it is a crime in some countries.

Bottoms Up!

Wine

Wine is made from fermented grape juice. The grapes are pressed and the liquid is siphoned out. While red wine comes from red grapes, white wine can too. The Pinot and Zinfandel grapes can make both white Pinot Grigio or White Zinfandel, or they can be fermented on the dark grape skins and become the red Pinot Noir or Zinfandel wine. The skins have more flavor and more tannins which lead to a more intense, fuller bodied wine.

There are so many descriptors that can be applied to wine to explain its every nuance. Fruity, sweet, dry, hot, and so on. These can be influenced by everything that holds sway over the grapes, from variety of grape, soil conditions, weather, and so on. There are a few basic rules that I follow, and these are generalizations.

The higher the alcohol by volume, the more intense the flavor will be. Table wines start at 13% or 13.5% alcohol by volume. These are ok and inoffensive. They are meant to be paired with a meal as a basic beverage. To wine aficionados, they tend to taste watered down though. As a wine gets 'hotter' or increases its alcohol by volume content, the flavors intensify. This is because yeast converts sugar into alcohol. The more sugar there is, the more alcohol there will be in the end product. Grapes produce sugar and other stuff at about the same rate, so grape juice that is capable of producing 13% wine has less of that other stuff, and less flavor, than grapes juice that results in hotter wine. Generally, a 15.5% Zinfandel will taste more intense and have more flavor than a 13% Zin. Whether you like that flavor is entirely up to you, but if you want to bring passable wine to a wine snob's house, getting an ABV above 15% is a good start.

Some wines are drier and some are sweeter. Generally, red wines tend to be less sweet because they have tannins. Another beverage with tannins is tea and we all know that if you aren't used to drinking unsweetened tea, it has that pucker factor. Wine can be the same way, and just as sweet tea vs regular tea is a personal preference, dry vs sweeter wines is another preference. Some wines are sweeter because the grapes have less tannins, but others are sweeter because

they shut down fermentation before all the sugars are consumed. In general, white wines are sweeter and have a lower alcohol by volume.

When it comes to sweet beverages, there are two directions that vineyards take when making sweet wines. There is the dessert wine like port which takes a young, sweet wine, and fortifies it with brandy, or a champagne which cuts fermentation early by cooling the beverage below the temperature that yeast are active before they have finished their jobs. The champagne makers then bottle the young wine and let it warm again. When the yeast wake up, they begin making alcohol and the other byproduct, carbon dioxide which gets trapped in the sealed bottles and gives champagne its trademark pop and fizz.

Another distinction that I like to make when it comes to wines are young vs old or aged. Young wines are wines which are bottled just as they're finished fermenting or even before. Wines are aged in barrels or on wood chips as they do their thing. This lets them absorb flavors from the wood which can be another source of tannins. Wines which are aged have more complex flavors as all sorts of magical things happen where the beverage meets the barrel, but some people may not find those flavors pleasant. Some people prefer a sweeter, less complex wine and gravitate towards younger wines.

So, where's my wine buying guide. I never spend more than \$15-\$20 a bottle and some of my favorites routinely go on sale for \$7 a bottle. I use the same limits when buying wine as a gift for people unless it's an anniversary and I want to *impress* my wife.

If someone likes sweeter wines, find a white wine with descriptors like "fruity" or "young". You might even be able to get away with a 12.5% bottle. Pinot Grigio and White Zinfandels are old standbys for people who just want a slightly sweet alcoholic beverage that doesn't taste unpleasant. There are drier wines which are less sweet, like chardonnays, pinot gris, sauvignon blanc and Italian pinot grigios have a higher acid content but lack the tannins that have that pucker factor. Young red wines like pinot noirs, burgundies, chiantis, and malbecs can bridge the gap into more intense wines. As a side note, when cooking, all the wines mentioned so far in this paragraph are good to add to dishes as they can cook down without adding unpleasant flavors. After this point lie the full bodied and dry wines, like merlots, zinfandels, cabernets, and syrahs which are best enjoyed by themselves. They can overpower most foods but pair really well with a good steak or dark chocolate.

Wine pairings are, in my opinion, overhyped. Drink the glass of wine that you like while you eat the food that you like, but if you cook a more delicate dish, a more delicate wine may be in order.

Beer

Beer has seen a revolution in the US. Thanks to prohibition, the only beer you could get was the pale yellow stuff that has been made exactly the same way, in mass quantities, since December 5, 1933. Some people turn their noses up at Bud, Miller, and Coors, but I have an amazing amount of respect for those guys because if a bottle of Budweiser doesn't taste exactly like one that came

off the line 10 years ago, their customer base will know. They do consistency and quality on a huge scale and do it well.

Other varieties are inspired by the craft beer boom or the European tradition. As I type this, I am drinking a Craft Brew IPA (apologies for any typos) which draws inspiration from the British colonial tradition but is passed through the lens of the modern craft brew revolution. We are currently in the golden age of beer brewing and every rule I can think of has several exceptions because some brewer, somewhere, thought “Why can’t I make an [X] beer that isn’t [Y]?”

So, I’ll break beer down into its basic usable knowledge and recognize that dark beers can be dry, like Guinness, or that light colored beers can be rich and full bodied. So instead of talking about the finished product and trying to come up with rules about that, I’ll talk about the ingredients and their effect on beer.

Beer is a bitter beverage. This is actually intentional nowadays. Back in the day, hops were added as a preservative. This is why India Pale Ales are so bitter, they were over-hopped so that they wouldn’t go bad for British troops in India. Beer gets its bitterness from hops, which are green flowers grown and harvested almost exclusively to add bitterness to beer. The more hops a beer has, the more bitter it will be. This is measured by the International Bittering Units (IBU) scale. If you don’t like bitter beers, look for beers with a lower IBU value or labels like “Lightly hopped”. The bitterness of a beer is generally based on how much hops are added to the wort and is independent of color because the color of a beer has everything to do with the Malt.

When I talked about preserving grain harvests earlier, I was referring to the act of letting harvested grains begin to sprout before roasting them and steeping in a large pot of boiling water which makes a wort. This lets beer be both a harvest storage medium and a source of clean drink. Darker beers have malts which are roasted for longer which, like coffee, leads to a more intense malt flavor. Some malts are almost burned which adds a little bitterness, but most roasted malts don’t add bitterness at all. A red ale is more bitter than a lager because it’s hopped and not because it’s made with malts roasted to the point they give a red color.

The more malts you add to a wort, the more sugars and flavors will be available which is why higher alcohol by volume beers also have more flavors. An Imperial stout has 2-3 times the amount of dark roasted malts as a regular stout and has a higher ABV to match.

Again, like wine, the primary mover in the fermentation and bottle carbonation processes is the humble yeast. In fact, when we discovered the species of yeast responsible for fermentation, we named it *Saccharomyces cerevisiae*. The latter part should sound familiar if you’ve ever ordered a *cerveza* around a certain celebration that happens in May. Just like the *felis catus* comes in hairless sphinx cats to super fluffy persians, yeast comes in different varieties and different varieties can impart different flavors on the beer.

While the Bavarian Purity Laws, or *Reinheitsgebot*, mandated that beer must only contain malt, hops, water, and later yeast, other cultures have a long tradition of adding other things. Belgian beers get many of their distinctive flavors from added herbs, spices, and fruits. Just like a dish you would cook,

adding more things adds more flavors.

Liquor

The hard stuff. Known as spirits because of the process it takes to make it. A fermented liquid is put in a giant pot or still and heated up to the point that the alcohol (or spirit) boils off but the water stays behind. The alcohol vapor is then cooled down and collected. This liquid can be flavored, like gin, or it can be aged, like whiskey, scotch, and tequilas. Some are just refined and bottled, like vodka, and others are mixed with other liquids, like wine + brandy = port or sugar + flavorings + water + liquor = liqueur.

Vodka

Vodka can be made from potato spirits or grain spirits. There aren't many regulations about vodka except that it has to be a distilled spirit. The book version of James Bond's preferred drink was actually a bit of Russian potato vodka with crushed pepper flakes sprinkled on top. He claimed the flakes would soak up the oil and sink to the bottom. An interesting bit of back story for a spy that would have spent quite a bit of his time trying to blend in in Russia.

Vodka is more often blended than sipped neat. It can be shaken into a Vodka martini which is pretty much ice water, vodka, an olive, and maybe dry vermouth. I keep vodka around primarily as an ingredient for cocktails.

Whiskey

If you take a spirit and put it in a barrel to age for a while, chances are you're making a variety of Whiskey. If you take corn spirits, put it into a barrel at a certain ABV level, age it for a certain amount of time, and pull it out at a certain ABV, you can call it Bourbon. Otherwise it's just corn mash. The West Wing got that bit wrong, by the way, it doesn't have to be made in Kentucky to be labeled a bourbon.

If you are looking to buy a Whisky and not a Whiskey, you may be looking for something that comes from Scotland. But just like Bourbon Whiskey comes from North America (a mark of the Scots-Irish influence which departed from Ireland and not Scotland), Scotch Whisky come from Scotland. Scotch is a whiskey which can derive a great deal of its flavor from the water and locality where the distillery is located.

I personally like Canadian Club whiskey, it's fairly easy to drink on the rocks (on ice), can be mixed with mixers easily, or can be shaken into a cocktail. Very versatile and even sippable neat from a flask on the side of a river while fly fishing. I never mix my scotch unless it's a blended scotch.

Most bourbons and whiskeys are meant to taste the same year in and year out. They may be blended to adjust the taste and have consistency as the goal. It's rarely stated that a whiskey is blended or not, but some may put it on the label nowadays. Scotch has a clear labeling system that is used to differentiate

between the two. There is blended and single malt. A bottle of Johnny walker black from the store will taste identical to the sealed bottle gathering dust in your grandpa's liquor closet. This is because Johnny is a blended scotch. They don't send off all the barrels from this year's stilling process to the bottling factory and instead blend this years with one from last year, ten years ago, or even seventy years ago if it results in that consistent flavor. An aged blended scotch mandates that the youngest scotch is the age put on the label. A 15 year blended scotch may have a 15, a 30, and a 75 year old blend if it is needed to get that flavor.

Single malts are unpredictable. They come from a single still or even a single barrel. There might be minor fluctuations in taste from bottle to bottle and scotch aficionados appreciate those differences. Single malt scotch barrels are also selected for bottling and not all make the cut, this results in increased cost which is why your average scotch drinker may get offended if you drink your scotch with anything more exotic than a bit of cold water.

Gin

Gin is pretty much vodka but infused with herbs and spices. It has a pretty shady history since those herbs and spices allowed unscrupulous gin makers to cover up the off flavors from cheap spirits. During prohibition, moonshine would often be stirred in a tub with juniper berries which resulted in a concoction known as bathtub gin. This gin would still be pretty rough tasting and would need to be mixed into a cocktail. While cocktails predate prohibition, the 20's were really responsible for their rise to ascendancy.

To me, a Martini is made with gin and any sort of vermouth. A Dry Martini gets its name from the dry vermouth which is added before shaking or stirring. Gin is also easily bruised. Bruising refers to how mixing alcohol over ice changes the flavor. It introduces oxygen to the mix and dilutes it with water, opening the flavors up. When James Bond said "Shaken, not stirred" he would follow it up with something along the lines of how stirring bruises the gin. That was in reverse. Bruising can be a desired effect or it may add some bitterness, but it always comes from shaking.

Tequila

I'm sure everyone has a Tequila story, right? Yeah, we all do. Anyway, Tequila is a spirit that is made from blue agave in the Mexican state of Jalisco. The blue agaves are harvested and then roasted before being crushed and fermented. The resulting mash is then distilled and comes out clear or "silver". Like whiskey, it can be aged in barrels to pick up flavors, colors, and complexity.

The signature drink of Tequila, besides shots, is the Margarita. The best Margaritas are actually shaken over ice and not ground into a slushie. Take 3 ounces of tequila, 1 ounce of agave syrup, .5 to 1 oz of orange liqueur (such as Cointreau), and 2 ounces of lime juice and shake before straining into a glass rimmed with salt (optional). The salt on the rim does more than look interesting

as it can momentarily dull the heat from spicy food and allow one to taste the drink when eating a particularly piquant dish. Also, because this is a drink that is made with fruit juice, it should be shaken and not stirred in order to better mix the juice and open up the flavors.

#Rum Rum is one of those storied liquors. Lore has it that pirates drank it in excess, but sailors would actually get it as an ingredient in their portion of grog. The navy would make grog with lemon juice to prevent scurvy, water for hydration, cinnamon for flavor, and rum to keep the drink safe and make everyone happy. Rum was also one leg of a fairly shameful trade in US and colonial history where molasses would be refined from sugar grown in the Caribbean, shipped up to the European where it was turned into rum, and then traded with the African tribal nations for slaves, who would then be shipped to the Americas to work the sugar plantations.

Rum can come in almost any variety, from the refined rums that are drinkable neat, or by itself to the highly flammable Bacardi 151. It can be un-aged and white or it can be aged and spiced. I don't have any preference for rum because I had a run-in with the Captain during my college days.

Cocktails

I've covered a few cocktails so far, but I do want to talk a bit about the theory aspects of what a cocktail is. Traditionally, a cocktail is broken into three parts, the base or spirit which gives the drink its kick, the modifying ingredient which makes the spirit's flavor more palatable, and the special ingredient which adds color or a bit of flavor.

I count there to be two more ingredients, the first being the ice which chills the cocktail and releases water which can change the flavor. The second is the garnish, which adds flavor, interest, or something else to the dish. It can be an orange slice garnishing a screw driver, an olive in that martini, or a celery stick in the bloody mary. Usually garnishes are used as a visual indicator that a drink is a specific cocktail.

When it is time to make cocktails, you'll need something to measure the ingredients, a vessel for mixing, something to strain the drink from the ice, and some sort of glass to serve it in. Cocktails are usually measured in either ounces or shots, but the measuring cup of choice is known as a Jigger. Usually a Jigger will actually have a larger cup called a jigger which measures out three ounce pours, and a pony, which measures either ounce or ounce and a half shot volumes. There is no standard so measure your jigger at least once. In general, you want to use the Jigger to measure the base or spirit with one or two shots per drink, and use the pony to measure the modifying agent if you're adding more than a dash.

The most common mixing vessel sold to home barmen is a combination shaker and strainer. I own one, but I rarely use it. My preferred mixing vessel is a Boston shaker. The Boston shaker is two cups, usually a metal shaking tin and one pint glass, or two metal, where one fits into the other. It has measurements on the side so I can pour volumes without having to rely on the

jigger. I top with ice, put the pint glass into the tin, slap it down with my palm to get a good seal, shake it horizontally, and then crack the two apart and strain through a tiny gap. If you want to stir your cocktail, you may need a separate strainer, but the Boston shaker is very efficient and cheap and doesn't freeze shut like a cobbler shaker (the one with the built in strainer holes). It's also easier to clean. You may want to get a muddler if you make mint juleps since crushing the mint leaves into sugar releases the essential oils.

When it comes to glassware, there are a few traditional glasses that will keep your guests happy. There's the Old Fashioned or rocks glass¹⁰⁹ which is the stout glass that you see people drinking whiskey out of and is used to drink neat liquors out of. There's the tall glass which is used to serve drinks with a large volume of modifier, such as a screwdriver which is a little bit of vodka and a lot of orange juice, and the cocktail glass, which is a stemmed glass used to drink more concentrated cocktails that you want to keep cold. Also keep a few pint glasses and wine glasses on hand for those who prefer beer and wine.

Conclusion

Well, it's been a long road to this point. I would like to thank all of you who tagged along with me over the year. I'd also like to send a special thanks to /u/particlese who helped me proofread some posts before I put them up. If there were any particularly well written or error free posts, you have /u/particlese to thank for that, if there were any that were kind of bad, the blame is solely with me. I am also in the process of compiling these posts into an annotated PDF document¹¹⁰ that I may post sometime soon, and I was planning on posting it along side this one, but it got delayed by life.

I do not plan on writing any more of these class posts and I would like to thank you again for tagging along on this year long cooking class with me.¹¹¹¹¹²

¹⁰⁹My dad calls them "Club Glasses" so that may be another, equally valid term for them.

¹¹⁰Here we are!

¹¹¹This was my way of saying "I'm done, leave me alone"

¹¹²I'm done, leave me alone