

MANUFACTURING MATTERS

2019 Innovator of the Year and Manufacturers Wall of Fame Award Recipients



Patrick Morocco (left) and Rick Harrington (right).

MACNY has officially announced the 2019 Inductees for the Manufacturers Wall of Fame and Innovator of the Year!

This year's Manufacturers Wall of Fame Inductees are Patrick Morocco, President of Bartell Machinery, and Rick Harrington, who has recently retired from his position as Senior Vice President of Operations at The Raymond Corporation.

Morocco and Harrington will represent the nineteenth class of members inducted into the Manufacturers Wall of Fame, joining a prestigious group of manufacturing leaders who have been honored since the Wall of Fame's inception in 2001. The Manufacturers Wall of Fame celebrates individuals who have demonstrated long-term dedication to manufacturing in Central and Upstate New York.

Dr. Chao Wang of Cryomech, Inc. has been selected as MACNY's 2019 Innovator of the Year. Dr. Wang was nominated for his innovative developments in cryocooling that have allowed Cryomech to maintain their position as a leader in their industry.

MACNY's Innovator of the Year award, sponsored by Corning, Inc. was created as a way to recognize individuals within MACNY member organizations who consistently demonstrate forward thinking ideas in the areas of technology, innovation, and advancement of products and production.

Patrick, Rick, and Chao will accept their awards at MACNY's 106th Annual Dinner on May 23rd, 2019 at the SRC Arena and Events Center in Syracuse, NY. We hope you will join us in celebrating the accomplishments of these three outstanding individuals.



Dr. Chao Wang

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Do you want to...

- Learn more about MACNY's services and how to better utilize your membership?
- Meet our staff and, more importantly, have an opportunity to meet other MACNY members and learn more about what they do in our community?

We are excited to be holding **Maximize Your Membership** sessions on the second Thursday of each month from 9 - 10 AM.

Mark your calendars for our next three meetings...

April 11 May 9 June 13

Please contact Julianne Pease at jpease@macny.org or 315-474-4201 ext. 19 to sign up for any of our upcoming sessions!



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Randy Wolken
President & CEO

Learnability is the Key Skill for the 21st Century

Every organization is seeking current and future staff who are good at learning. Without it, your company will struggle in the 21st Century. I truly believe that your very best employees will be great at learning.

So, what is learnability? Learnability is the desire and capability to develop in-demand skills. Learnability is the key to both personal and organizational success. How do you know if you and others have learnability? It can be observed and even measured.

Learnability starts with curiosity. When we are curious we are driven to learn new ideas and skills. When we act on this curiosity we are practicing learnability. In many ways, it starts by identifying what we don't know. It is then advanced by focusing on our lack of knowledge and skills in areas that are now emerging or will soon be in-demand. It means working on our weaknesses – not just our strengths.

By one estimate, up to 65% of the jobs Generation Z (born after 1995) will perform don't even exist yet and up to 45% of the activities people are paid to perform today could be automated using current technology. I do not believe this means fewer jobs, but it will mean new jobs requiring different skills. Witness the critical skills shortage we have with national unemployment rates near 4%. This means we will need to identify and learn new skills to have the jobs we have now – and the jobs of the future.

As leaders, it is our job to encourage learnability by demonstrating it and providing opportunities for our teams to master it. It is a daily, monthly, and yearly endeavor for anyone who wants to thrive in today's fast-paced world. It is no longer optional. It is a strategic priority.

Is learnability a top priority for you? Are you known for being curious and seeking new skills? Do you demonstrate how to practice learnability by tackling new in-demand skills for your own growth? Do you talk with your team about key existing skills and future skills needed for success? What you and your team will need to be successful must be learned. You and I, as leaders, must set the pace for increasing learnability in our organizations.

MACNY offers many opportunities to develop learnability. To find out more about how we can help you and your organization thrive, visit www.macny.org or reach out to any of our team members.

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**MACNY, THE MANUFACTURERS
ASSOCIATION PRESENTS...**

22ND ANNUAL GOLF TOURNAMENT

Members and Guests of Members Welcome to Play!

**MONDAY,
22 JULY 2019**



Registration & Lunch at 11:30 AM

Shotgun Start at 1 PM

Cocktails, Hors d'oeuvres, and Awards at 6 PM

Bellevue Country Club
1901 Glenwood Avenue
Syracuse, NY 13207

Sponsorships available now!

Team registration opens May 13.

For more information or to register, contact
Julianne Pease at jpease@macny.org.



Cindy Oehmigen

Director of Energy and Corporate Services

Earth, Wind, and Fire

As many of you will relate, I have become dependent on my cell phone for all kinds of reasons. Finding where I want to go, remembering details, looking up things I am curious about, checking e-mails, and occasionally making/receiving a call. When the battery starts to give out, I carry a power pack to recharge it. As long as I remember to recharge it after use, I am good to go. I have often wondered how people who camp, boat, or play off the grid for longer periods of time keep their cell phones in working order. I recently ran across an interesting approach for this challenge. It should come as no surprise it is a renewable energy solution.

Wind: A very packable, portable turbine that is energized by water or wind flow makes a reasonably painless fix. The blades of the fan are turned by wind or water and the turbine captures enough energy to produce electricity. The electricity is enough to recharge many small electronic devices like cell phones. As long as one has access to flowing water or wind, electronic devices can stay charged. The turbine can be tethered out the back of a boat, staked in a bubbling brook, or hoisted to capture wind. Learn more at <https://waterlilyturbine.com/>.

Fire: A few years ago I was fortunate to take the trip of a lifetime to Kenya. While we were out in the bush, I was quite surprised at how ingenuity provided all the comforts of home, even though we were sleeping in tents. We were close to the equator, but it was cold at night. We were kept warm by solar (fire) energized heaters. Renewable energy at work once again. There are lessons to be learned by this version of microgrid energy (produced where it is used) driven by necessity. Not unlike the invention of the windmills that used to dot the countryside of the Midwest.

Earth: A common fuel retrieved from the earth to produce electricity is natural gas. It is a viable option for creating electricity, however if we include the cost of managing the carbon impact, it is costlier than non-fossil fuel options. There is another option harvested from the earth. Geo-thermal heat pumps leverage the differential of the temperature of underground water and the above ground atmospheric temperature to reduce the amount of energy needed to warm or cool processes or occupancy conditions and it is an environmentally friendly option. Combining the innate thermal ability of water to retain temperatures (storage) with solar and the energy of movement from wind/water flow, there is potential to budge us off fossil fuel.

Having access to electricity at any time of the day is still dependent on an effective way to store energy when it is produced beyond immediate demand so that it can be available for later. It is encouraging to learn about the progress that is being made to develop efficient, affordable storage technology. I don't know the data that predicts how long we will be able to use fossil fuels, whether driven by the limits of the resource or the effects it will have on the environment. I also don't have data that predicts limits on the use of "earth, wind, and fire (solar)," but I am quite sure it will be longer than fossil fuels. We just need to figure it out.



David Freund
Chief Leadership Officer

A Time for Renewal

I love every season, but spring is a very special time. It's a time of renewal. The old dead remains from the previous year have decayed and new growths begin to sprout up all around us. Colors begin to show up everywhere. Perhaps the first to appear are the Snowdrops and Crocus that push through the snow as the soil is warmed by the sun. Then the Daffodils and Tulips. Soon the grass turns to a richer green. We get to have a front row seat for this remarkable season of renewal. Will you also make this a season of personal and professional renewal? Will this be a time to reflect, reset, and reengage? Here are a few ideas that might help you start:

Try Something New – Try something that you have never done before. Something that is a bit frightening. If you don't ever try anything new, you won't ever know what you are capable of. Unless you are intentional about embracing your fears, you will remain bound by them. Often, our fears are exaggerated, and the tasks aren't as difficult as they appear. This winter my son and I decided to rebuild the engine for our old wooden boat. We restored the boat several years ago, but now the engine needs some help. My son worked his way through college at Brinson Marine and is quite familiar with boat engines. That said, completely tearing down a small block V8 and rebuilding it was even out of his comfort zone. None the less we pushed on, and as I write this, my workshop at home has the engine in pieces. We are very careful about what we are doing, and his Brinson experience combined with my Tool Maker background is serving us very well. Of course, YouTube and MotorTrend videos are adding some comfort to the process. Are we still a little nervous? You bet we are, but with each step in the process we learn and grow, and the fear subsides.

Go Somewhere New – As the winter subsides, plan to take a trip somewhere. Central New York is situated perfectly for quick travel to amazing places. Major cities, mountains, lakes, canals, and forests are all within a few hours. You can even be in a different country in two hours. Find a place you have never been to and go.

Take a Class – Is there something you've always wanted to learn? How about a foreign language? In America, we are spoiled by the fact that we can travel from state to state and the language remains the same. Our friends in Europe have it quite different. A short drive results in another language being spoken. Today there are several ways we can learn a new language. You never know when it might come in handy.

Read a Different Kind of Book – For years the only books I read were on the topic of leadership. One day my youngest son recommended I read something else. Not having a clue what else I might enjoy, he suggested I read different writers so my writing would improve. Well, I don't know if my writing has improved, but I have enjoyed reading books by Peggy Noonan, a former speechwriter for President Reagan, Columnist Charles Krauthammer, and various books on history. Reading these books has exposed my mind to the viewpoints of others and nuances of history that I never learned in school.

For this to be a time of renewal, commit to doing something new. What you do is far less important than the fact that it's new. You will find a new you. More courageous, more interesting to be around, and frankly speaking, more alive.



Laury Ferguson
Assistant Director of Apprenticeship

Apprenticeship. It's the Smart Choice...It's What's Good for Business!

How do we prepare our workforce for jobs in the 21st century? How can we possibly compete with our competitors if our skilled workforce pool is dwindling? How can we possibly continue to meet the needs of our customers that demand higher output with a shorter lead time, while providing a quality product that we take pride in delivering? How do we keep our customers from going elsewhere? How do we replace our skilled workers as they prepare to retire?

These are the questions that plague many businesses across the U.S. and alone these businesses are unable to solve today's skill shortages or prevent new shortages tomorrow. However, by building partnerships with workforce development, education, and government they have the resources and ability to create on-the-job training programs that increase the skillsets of our workers and prepare them to step into skilled trades.

Businesses turn to Registered Apprenticeship (RA) programs because of the difficulties they face with sourcing and recruiting skilled workers that meet both job and education minimum requirements. Within the apprenticeship framework, businesses have the flexibility to adapt their On-the-Job Learning (OJL) program to their specific needs. The business structures their OJL plan and curriculum to meet their individual needs defined by them, the experts!

For a RA Program to be successful, the business needs to believe that the value outweighs any type of risk or costs associated with the program. There are three main metrics they may use to measure the value of having apprentices on their team.

Production: Businesses gain the value of output the apprentice delivers during their OJL as they gain knowledge and proficiency. Once an apprentice completes the program, the value can be measured through an increase in output, quality, and reduction of errors. Apprenticeships provide workers with both practical skills and an understanding of fundamental principles. They can be cross trained in different areas and perform a wide variety of skilled tasks.

Workforce: Being an apprentice provides an individual with a future and a career...it's not "just a job." Knowing the employer is investing in them and committing to their success builds a bond of loyalty between the company and employee, and also serves as a motivator to stay rooted in their communities. The result can be seen through the reduction of turnover, decreased hiring costs, improved recruitment, and increased pipeline of skilled employees.

Soft Skills: Apprenticeships lead to improved employee engagement, shared knowledge, greater problem-solving ability, flexibility to perform a wide variety of tasks, and a reduced need for supervision.

There are certain decisions that are made with a RA Program that can greatly affect overall costs, benefits, and design of the program (length of program, wages for the apprentice and mentor, program management, OJL curriculum/equipment). One factor that can affect start-up and ongoing costs is whether a company decides to sponsor their own program or work with other businesses, Department of Labor, and/or a not for profit agency. Having an external sponsor, like MACNY, that can assist with managing the administrative functions and sourcing grant funding opportunities, certainly has its advantages and helps keep costs down while increasing program success.

The key to sustaining and having a successful apprenticeship program is to balance the interests of the employer, the apprentices, and the incumbent workforce to see the benefits. The quality of training provided in an apprenticeship results in a prepared, highly skilled, diligent workforce. Additionally, an apprenticeship works to close the skill gap and is the answer to the question, "How do we..."

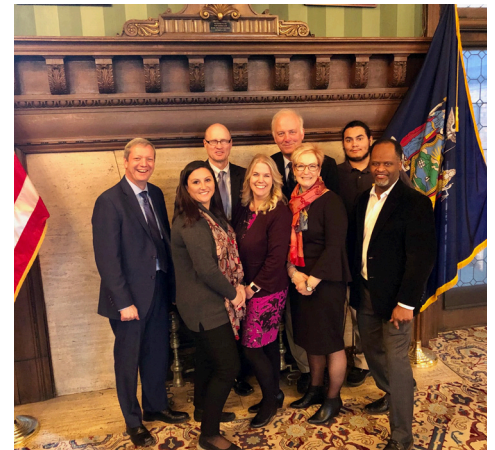
Simply put, "Apprenticeship. It's the Smart Choice...It's What's Good for Business!"

GOVERNMENT RELATIONS



Tiffany Latino-Gerlock
Director of Government Relations
& Communications

Manufacturing Lobby Day



The power of a collective voice - that's what we conveyed to State Legislators on March 6th when we, along with nearly 50 of our Alliance Partner members and MACNY Members, gathered in Albany (or hit the hallways of the Capitol) to advocate on behalf of the local manufacturing industry. We held more than 25 productive meetings with key State Assembly Members and Senators, and/or their staff, focusing on economic development, workforce initiatives, energy, and human resources. Thank you to all who attended!

Two specific measures we were there to champion were a 0% tax rate for all manufacturers to be included in the final 2019-20 State Budget and continued state funding for our very successful New York State Manufacturing Intermediary Apprenticeship Program. We also were there to share our concerns with some current proposals that would significantly hurt Central New York companies, such as legislation that would expand the definition of "public works" to include nearly all future construction projects, including those that receive assistance from local and state governments. In addition, we discussed ongoing energy, human resources and labor issues. Also, we heard from Lieutenant Governor Kathy Hochul on economic development, job growth, and the need for skilled workforce in the State of New York.

It's critically important that we sit down with our State Legislators to share our unique and compelling perspectives, answer their questions, and discuss how certain policy and legislative issues might impact manufacturers in the communities they serve. But our work doesn't stop here!

We will continue to work with our MACNY Members and our elected officials on these and other important issues as the 2019 Legislative Session progresses. Of course, we look forward to building upon the relationships we have fostered with some of our newly elected state officials. Remember - your voice matters! Please contact me anytime to discuss any issue that I could help advocate for on your behalf. I can be reached at (315) 474-4201 ext. 13 or tiffanylatinog@macny.org.



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Hilary Hext
Training Manager

For additional questions or training on this topic, contact Hilary directly at hhex@macny.org or (315) 474-4201 ext. 24.

How to Be a Great Interviewer

Whether you're an HR professional, hiring manager, or group interviewer, it's important to know what to do when interviewing candidates. Follow these few easy steps and you'll be well on your way to finding the best candidate.

Step 1: Arrive prepared!

- Read the candidate's resume. Don't glance at it while they're sitting in front of you – it's important to review their work experience ahead of time so you can ask the right questions to get to know them and determine if they're a good fit for your organization.
- Review the job description. Are you sure you know the requirements for the job? The candidate will expect you to ask them questions based on the job description, so it's important to know what those requirements are.
- Prepare some questions prior. Even if you ask the same questions to each candidate, it's important you have a list of questions so you can better evaluate all the candidates once the interviewing process is completed.

Step 2: Know what you can and cannot ask about. There are many things that are off limits and some grey areas you should be careful of. Below are areas to avoid or re-word when in an interview situation.

- **Pregnancy and Family-Related Questions.** This may be an obvious one for some, but others who are less experienced in interviewing may have a hard time differentiating what they can and cannot ask. For example, you may NOT ask the following:
 - Are you pregnant?
 - How many children do you have?
 - Are you married?

Instead, you can ask, "Do you have any commitments that might prevent you from working the assigned shifts?"

- **Age-Related Questions.** Make sure to avoid the following:
 - How old are you?
 - What year were you born?
 - What year did you graduate high school?
- **Citizenship or National Origin.** Make sure to avoid the following:
 - Are you a U.S. Citizen?
 - Can you provide a birth certificate?
 - What country are you from?
 - How did you learn (language)?

Instead, you are legally allowed to ask, "Are you legally eligible to work in the U.S.?" and "Can you show proof of work authorization?" If speaking English is a requirement of the job, you may ask, "Are you able to speak, read, and write in English?"

Step 3: Show the candidate care and consideration when interviewing. Remember, you may be the first person they meet from your organization and you have an opportunity to promote your company's brand and culture. Answer all the candidate's questions and remain engaged throughout the interview. If you have other commitments before or after your scheduled time together, be honest and don't get distracted by phone calls or emails. It's important to focus on the conversation with the candidate and make sure you both have a chance to say and ask what you need to.

Remember, interviewing can be a stressful experience for both the candidate and the interviewer, but with these simple tips you will be more successful in your preparation and selection of candidates!

Hot Off The Line

Q - Is it against the law in New York State for one employee to record another employee without his or her permission on the shop floor? We do have a policy about cell phone use. Unless there is an emergency, cell phones can only be used on breaks and lunch.

A - Generally, it is not illegal for one employee to video tape another without their permission, except in a restroom. Since you have a policy regarding cell phone usage during certain business hours, you could reprimand the employee who did the recording for violating the organization's cell phone usage policy.

Stats & Facts

- 83% of candidates reported a negative interview experience can change their mind about a company they once liked. *Source: LinkedIn Talent Trends Report*
- According to a Talent Advisory Industry Benchmark study, 72% of hiring managers say they provide clear job descriptions, while only 36% of candidates say the same. *Source: Allegris Group.*
- 12% of employees leave their job due to lack of support of work-life balance. *Source: Work Institute*

DID YOU KNOW?

In partnership with Brown & Brown Empire State, MACNY is now offering a free Workers' Compensation Question Hotline.

Simply complete the form located at macny.org/workers-compensation-hotline/ and a representative from Brown & Brown will be in touch to discuss and answer your question.

Any additional services completed by Brown & Brown at your request will be at the expense of the requesting company.

We hope you will find this to be a valuable addition to your MACNY membership.

CPI

Wage/Clerical	January	December	Pt. Chg. (Mo.)	% Chg. (Mo.)	% Chg. (Yr.)
1967=100	730.2	729.1	1.0	0.1%	1.3%
1982-84=100	245.1	244.8	0.3	0.1%	1.3%
Urban					
1967=100	754.0	752.5	1.4	0.2%	1.6%
1982-84=100	251.7	251.2	0.5	0.2%	1.6%
Unemployment Rates					
January - Onondaga County: 4.2; Metropolitan Syracuse Area (MSA): 4.7					



Joe Vargo
Executive Director
Partners For Education & Business

CNY Employers Educate Students About Their Careers *Syracuse Academy of Science Career Day*

For the second year, PEB has assisted in coordinating presenters for up to 350 students in grades 8-12 at Syracuse Academy of Science. Students were able to choose from 20 careers and register to attend presentations from their top three choices.

Most of the attending presenters incorporated an activity or demonstration into their career talk, which really helped make it relevant to the students. They were able to learn about the skills and education needed for a career in that field and heard personal stories of how each presenter became drawn to their profession. A survey distributed to the presenters provided the school with important information about their reflections and fortified the success of the Career Day. Many thanks to the presenters who shared their expertise with the students:

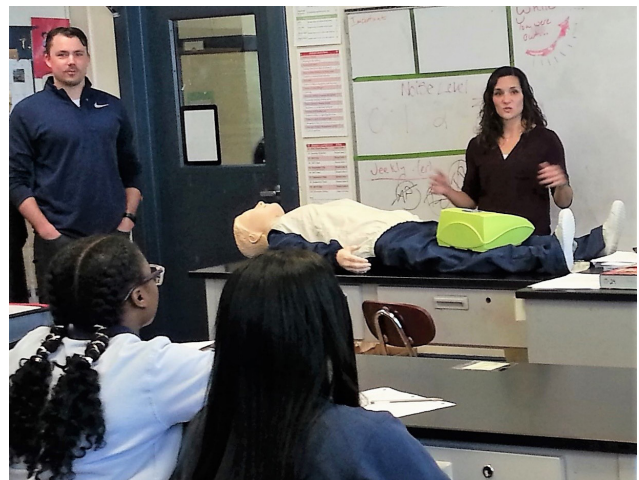
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Onondaga County Center for Forensic
Sciences
Onondaga Earth Corp
Stack Veterinary Hospital
S.U.'s Light Works
SUNY Upstate Medical University,
Emergency Medicine

SUNY Upstate Medical University,
Nursing
Syracuse.com
Syracuse Police, K9 Unit
The Redhouse
Visions Federal Credit Union
U.S. Army



Kelly Kinder, Latent Print Examiner from Onondaga County's Forensic Sciences Center, provides materials to students for taking/examining prints.



Presenters from SUNY Upstate's Emergency Medicine Dept. demonstrate CPR techniques to students.

Remotely Piloted Aircraft Systems at PSLA at Fowler



CNY Central News Drone Pilots Quindell Williams and Matt Landers

On Friday March 1st, Quindell Williams and Matt Landers, the first licensed photo journalist drone pilots for Channels 3, 5 and 6, visited students and brought Sky Eye One along with them.

Quindell, a graduate of Nottingham and Matt, a graduate of CNS, were students together at Onondaga Community College majoring in Electronic Media Communications. As this job, and many others require modern technology, they were approached by management at Sinclair Broadcasting with an opportunity to launch CNY Central's drone program and add "drone pilot" to their resumes. After all the studying and preparing, they both successfully took the Part 107 test, passed, and received their pilot certification from the FAA.

After Matt and Quindell put Sky Eye One on display, they spoke about some of the rules and regulations that govern drone pilots. They can only fly at 400 feet, or lower. They cannot fly with winds over 22 mph. They cannot fly directly over people or moving cars. They can only fly at night with specific waivers granted from the FAA. All their flights are captured with GPS coordinates and a "map" of their activity (flight log) is then forwarded on to the FAA.

The students had plenty of questions and it was great for them to meet real local people that have the careers that they aspire to. When asked how Quindell feels about his job and the addition of drone pilot to his duties, he said, "I love that I am able to be out in the community that I grew up in and show people that might not have the opportunity a better view of a place that I have seen for my whole life from a different vantage point." Matt told the students that he never thought in his whole life that he would be able to do anything close to piloting. He never considered a career in aviation. Matt added, "This opportunity has also taken me to new places, more than just in the air; it has shown me video production and travel and opportunities to talk to students like this."



Sky Eye One

Many industries are researching the application of unmanned aerial technology: police, fire, search and rescue, infrastructure inspection (utilities, bridges, etc.), agriculture (pollination and monitoring), and real estate. Where does your company see the advantages or utilization of this technology? We will have the workforce ready when you are!

Auburn P-TECH Visits Goulds Pumps

The Auburn 10th grade P-TECH program students visited Goulds Pumps in Seneca Falls on March 4th. The students were given the opportunity to learn and ask questions of company professionals. Jim Hubbard and Rob Fragoman spent time with the students to give them a brief history, show them where Goulds is located around the world, and talk about the opportunities that students could have with an associate's degree in mechanical engineering technology. Students were shown some of the products that made Goulds Pumps famous (Goulds has the best-selling submersible water well pumps in the world) and were also given an idea of how they plan to grow in the future and what that means for the Seneca Falls facility.

Jim and Rob shared their career stories as they explained how they were hired and what they did to progress in their respective careers. Jim impressed upon the P-TECH students that they needed to work hard to differentiate themselves from the pack at school and at work to get ahead. Rob pointed out how his job was fun, interesting, and even included travel and the opportunity to work with people in different cultures. Both agreed that Goulds Pumps is a great place to build a career. Thank you, Jim, Rob, and Goulds Pumps, for hosting an industry visit!

FEATURED TRAINING

The Metallurgy of Joining Processes

Program Overview:

In this course joining processes include welding, brazing, soldering, and certain additive manufacturing of metal parts (e.g. direct metal laser printing). While these processes are unique, they are similar in that they involve melting and solidification of one or more metals/metal alloys. In each process, a bond is created between two metals or metal alloys. This class will focus on what happens to the metal during melting and subsequent solidification, and the impact on chemistry and properties of the final product.

The goal of this course is to understand the fundamentals of what happens to the metal during the joining process.

A minimum of high school chemistry and math or equivalent is required.

Topics Covered:

- Fundamentals of thermodynamics & chemical reactions
- Ellingham diagrams and liquid metal reactions
- Chemical interactions between gases and liquid metal
- Diffusion in metals
- Solidification basics

When:

5 Sessions - all from 2 - 4:30 pm
April 24
May 8
May 22
June 5
June 19

Facilitator:

Jim Beckman
Consultant, MACNY
Former President of Crucible Industries

Where:

MACNY
Legacy Room
5788 Widewaters Parkway
Syracuse, NY 13214

Cost:

MACNY Members: \$800
(10% off for Individual Members)
Non-MACNY Members: \$1,000

Registration:

To register, email Hilary Hext at hext@macny.org or visit macny.org/events to complete an online registration.

Questions? Call (315) 474-4201.

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