Eighth Lecture

Business Correspondence

Business Correspondence in Engineering: Types and Structures with Examples

Business correspondence is the written communication used in professional settings, particularly within engineering fields. It plays a crucial role in building relationships, exchanging information, and documenting decisions.

1. Business Letter: Business letters are written communications to recipients who are external to the organization of the sender

Structure:

- Heading: Includes your name, address, date, recipient's name and address.
- Salutation: Formal greeting like "Dear Mr./Ms. [Last Name],"
- Introduction: Briefly state the purpose of your letter.
- Body: Clearly outline your message, providing necessary details and evidence.
- Conclusion: Summarize your main points and state your call to action, if any.
- Closing: Formal sign-off like "Sincerely," followed by your signature and typed name.

Example:

Subject: Application for Mechanical Engineering Internship

Dear Mr. Johnson,

I am writing to express my keen interest in the Mechanical Engineering Internship position advertised on [Website/Platform]. As a highly motivated and results-oriented [Year] student at [University], I possess a strong foundation in engineering principles and practical skills honed through various lab projects and academic competitions.

My studies have equipped me with expertise in [Specific skills] and a thorough understanding of [Relevant engineering concepts]. During my [Previous project/experience], I successfully [Achievement/Contribution]. I am confident in my ability to apply my knowledge and contribute positively to your team. Attached you will find my resume for your review, further detailing my qualifications and experiences. I am eager to learn and grow in a professional environment like ChemCo and believe my skills align perfectly with your internship requirements. Thank you for your time and consideration.

Sincerely,

[Your Name]

9 June 2013	
1117 The High Road 🔫	 Heading: the date and sender's address
Mr. David Patricks < 3005 West 29th, Suite 130 Waco, TX 77663	Inside address: name and address of the recipient of the letter
Dear Mr. Patricks: \prec	
I received your June 6th letter requesting consultation and am providing my recommendation in the following.	Introduction: indicates
First, let me review my understanding of your inquiry. The question you raise involves whether the heating registers should be located in a low sidewall or in the ceiling and, if ceiling registers are used, which type—step-down or stamped-	context and states topic and purpose
faced—will deliver the best results. Additionally, the problem concerns the benefit to having heating registers near the floor, whether moving heated air "down" in ducts negatively affects blower performance and whether adequate injection can be achieved on the low speed of a two-stage furnace.	Body text of the letter: single spaced text with double spacing between paragraphs; no first-line
My recommendations are as follows:	indentation
 I can find nothing in either Carrier, Tranc, or ASHRAE design manuals that indicates drop as being a factor in duct design any different from normal static losses. If you have different information on this, I would like to have references to it. 	
 I cannot see any advantage to low sidewall application. The problem is injection and pattern. I do see an advantage to low sidewall return; Carrier Design Manual-Air Distribution is a good reference on both items. 	Use of special formatting within the lefter: use
 I recommend step-down diffusers with OBD because they have pattern and volume control that is superior to stamped-faced diffusers. 	bulleted and numbered lists, even headings
 I am opposed to low sidewall diffusers or floor diffusers in this application. The increased static losses that result from trying to get the ducts down through the walls will only increase installation cost and reduce efficiency. 	
If there is anyone in your organization who is uncomfortable with these recommendations, let me know. I'd be very interested in reviewing any actual documented test results. Let me know if you have any further questions or if I can be of any further assistance.	
Sincerely, -	Complimentary close
Sincerely, - Mc M. wrey	
\mathcal{L}	
Jane A. McMurrey, P. E	Signature block
JAM/dmc Encl.: Invoice for consulting services <	End notations

2. Memo or Memorandum: Memoranda are written communications that stay within an organization

Structure:

- Heading: Includes "Memorandum" or "Memo," date, recipient, and sender names.
- Introduction: Briefly state the purpose of the memo and provide context.
- Body: Present the main message, organized into sections based on topic or audience. Use bullet points or headings for clarity.
- Conclusion: Summarize key points and outline any action items or next steps.
- Closing: "End" or "Regards," followed by sender's name and initials.

Example:

To: Project Team From: [Your Name] Date: [Date] Subject: Update on Design Review for Bridge Project

This memo serves to update you on the progress of the design review for the [Bridge name] project. As you know, the review focused on three key areas: structural integrity, material selection, and cost-effectiveness.

- Structural Analysis: The independent engineering firm confirmed the proposed design meets all load-bearing requirements and conforms to building codes.
- Material Options: We compared the pros and cons of [Material 1] and [Material 2] and concluded that [Chosen material] provides the optimal balance of strength, durability, and sustainability.
- Cost Estimates: Revised cost estimates indicate the project remains within budget, with slight modifications needed to optimize material usage.

The final revised design plan will be shared with all team members by [Date]. Please submit any feedback or questions by [Date] to ensure timely integration into the final document.

Regards,

[Your Name]

DATE: 25 May 2009 TO: Designers using AutoCAD ≺ FROM: Tony Cheung	— Memo header
SUBJECT: Problems with AutoCAD delays Several of you have been having problems with longish delays in picking entities when using AutoCAD. Here are some suggestions: When you pick a point, AutoCAD has to search through all of the vectors that are visible on the display (or in the current viewport) for one that crosses the pickbox (the little box centered on your crosshairs).This is how AutoCAD finds out what object is associated with the vector geometry that you select on the screen when you are picking objects for object selection or object snap. If there are a large number of vertices visible (each circle is represented on the display as a chain of as few as a dozen to as many as thousands of vectors), then there will be a noticeable delay as AutoCAD tries to find an object at the pick point	– Descriptive subject line
pick point. One way to reduce the overhead of display operations is as follows: 1. Issue the VIEWRES command. 2. Specify a smaller Circle Zoom Percent value. In a large drawing, you can lower this value to 25, which should have a significant impact on display performance, with the tradeoff being that your circles will look like hexagons or octagons (but will not plot that way). In addition to VIEWRES, you can also experiment with the TREEXXXX system variables, which control the granularity of spatial indexing of the display (such as the depth vs breadth of the display tree). Tony	– Use of special formatting, in this case, a numbered list (to indicate an ordered sequence)

3. Email: Electronic mail transmitted via the Internet which is sent from a computer or a mobile phone to the receiver's computer or phone. Its less formal than a letter or a memo but more formal than a phone call. Information sent by email should be non-confidential because it can be retrieved or recovered after deletion.

Structure:

- Subject Line: Concise and informative, summarizing the email's main point.
- Salutation: Informal greeting like "Hi [Name]"/"Hello Team, Dear Sir, "
- Body: Keep it concise and professional, directly stating your message and including necessary details.
- Call to Action: If applicable, clearly state what you expect the recipient to do.
- Closing: Informal sign-off like "Best," "Thanks," followed by your name.

Example:

Subject: Request for Equipment for Material Testing

Hi John,

I'm writing to request access to the tensile testing machine in the lab for my research on [Project name]. I'll be testing [Material type] samples under [Specific conditions] to analyze their [Property to be tested].

The tests are scheduled for [Dates] between [Timeframes]. Please let me know if the machine is available during this time and what safety protocols need to be followed.

Thanks,

[Your Name]

4. Application or Cover Letter: it's a letter describing why you are qualified for the job or position you need to apply for. It always sent attaching Resume or CV with it.

Structure:

- Heading: Your name, address, date, company name, and contact information.
- Salutation: Formal greeting to the hiring manager.
- Introduction: Briefly express your interest in the specific job and state your relevant qualifications.
- Body: Highlight your skills and experiences that align with the job requirements, using specific examples of accomplishments.
- Conclusion: Restate your interest, state your availability for an interview, and thank the reader for their time.

Example:

Subject: Application for Robotics Engineer Position

Dear Ms. Jackson,

I am writing to express my enthusiastic interest in the Robotics Engineer position advertised on your company website. As a highly motivated and results-oriented graduate from [University] with a [Degree] in Mechanical Engineering and a specialization in robotics, I believe my skills and experience align perfectly with your requirements.

Throughout my academic career, I have honed my expertise in [Specific skills] through various projects and internships. Notably, during my internship at [Previous company], I successfully [Achievement/Contribution] using [Relevant technology]. My passion for robotics extends beyond academics, as I actively participate in the [Competition/Organization] which has allowed me to develop strong teamwork and problem-solving skills.

I am confident that my technical knowledge, innovative mindset, and strong work ethic would make me a valuable asset to your team. I am eager to learn more about this exciting opportunity and how my skills can contribute to your company's success. Thank you for your time and consideration.

Sincerely,

[Your Name]

5. Resume or CV: A resume is a summary of your professional experience, education, and other background relevant to the employment opportunity you are seeking

Structure:

- Heading: Your name, contact information, and professional title (optional).
- Summary/Objective: Briefly summarize your career goals and key skills.
- Education: List your educational background, including degrees, institutions, and relevant coursework.
- Experience: Outline your professional history in reverse chronological order, including company names, job titles, and specific achievements for each role. Quantify your accomplishments whenever possible.
- Skills: List your technical and soft skills relevant to the desired field.
- Additional Information: Include any awards, certifications, or volunteer work that showcase your skills and interests.

Example:

[Your Name]

[Phone Number] | [Email Address] | [LinkedIn URL (optional)]

Summary:

Highly motivated and results-oriented Mechanical Engineer with 3+ years of experience in the aerospace industry. Proven ability to design, develop, and test complex mechanical systems within strict deadlines and budget constraints. Skilled in [Specific skills] and passionate about contributing to innovative engineering solutions.

Education:

- Master of Science in Mechanical Engineering, [University], [City, State] (GPA: [GPA])
- Bachelor of Science in Mechanical Engineering, [University], [City, State] (GPA: [GPA])

Experience:

[Company Name], [Job Title] ([Dates])

- Successfully led the design and development of a new engine cooling system, resulting in a 15% reduction in fuel consumption.
- Implemented a new [Software/Methodology] to streamline the product testing process, leading to a 20% improvement in efficiency.
- Managed a team of [Number] engineers in the development of a [Project name], exceeding all performance and cost targets.

[Previous Company Name], [Job Title] ([Dates])

• [List achievements and responsibilities]

Skills:

- Technical: [List technical skills]
- Soft Skills: [List soft skills]

Additional Information:

- Member of the American Society of Mechanical Engineers (ASME)
- Recipient of the [Award name] for outstanding academic achievement

Activity:

1. On site assignment