



Your skills. Your advantage.

Tosa for Autodesk AutoCAD®

Exam Blueprint

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Introduction to the Tosa[®] Exam Blueprint

For Tosa[®] Assessment and Certification

Tosa® (Test on Software Applications)

Tosa® assessments and certifications are designed to determine a candidate's proficiency level by evaluating their skills in office software and digital tools commonly used in a professional or educational environment.

These tests are specifically developed to validate the professional competencies of candidates looking to enhance their employability (employees, students, job seekers, and individuals undergoing career transitions).

Tosa® assessments and certifications are adaptive tests, developed using scientific methodologies. The scoring is based on Item Response Theory (IRT). The test algorithm adapts to each candidate's response in real time, adjusting the difficulty level of subsequent questions until it precisely determines the candidate's skill level by calculating the upper limit of their competencies. As a result, the tests provide a detailed and unique diagnosis of each candidate's abilities.

The rigor and reliability of Tosa® tests stem from the combination of a mathematical model for analyzing question difficulty and the relevance of the questions selected for each candidate (IRT).

Tosa® Exam Blueprint Objective

This exam blueprint outlines all the skills assessed within the domains and sub-domains of the Tosa® assessment and certification tests for Autodesk AutoCAD®.

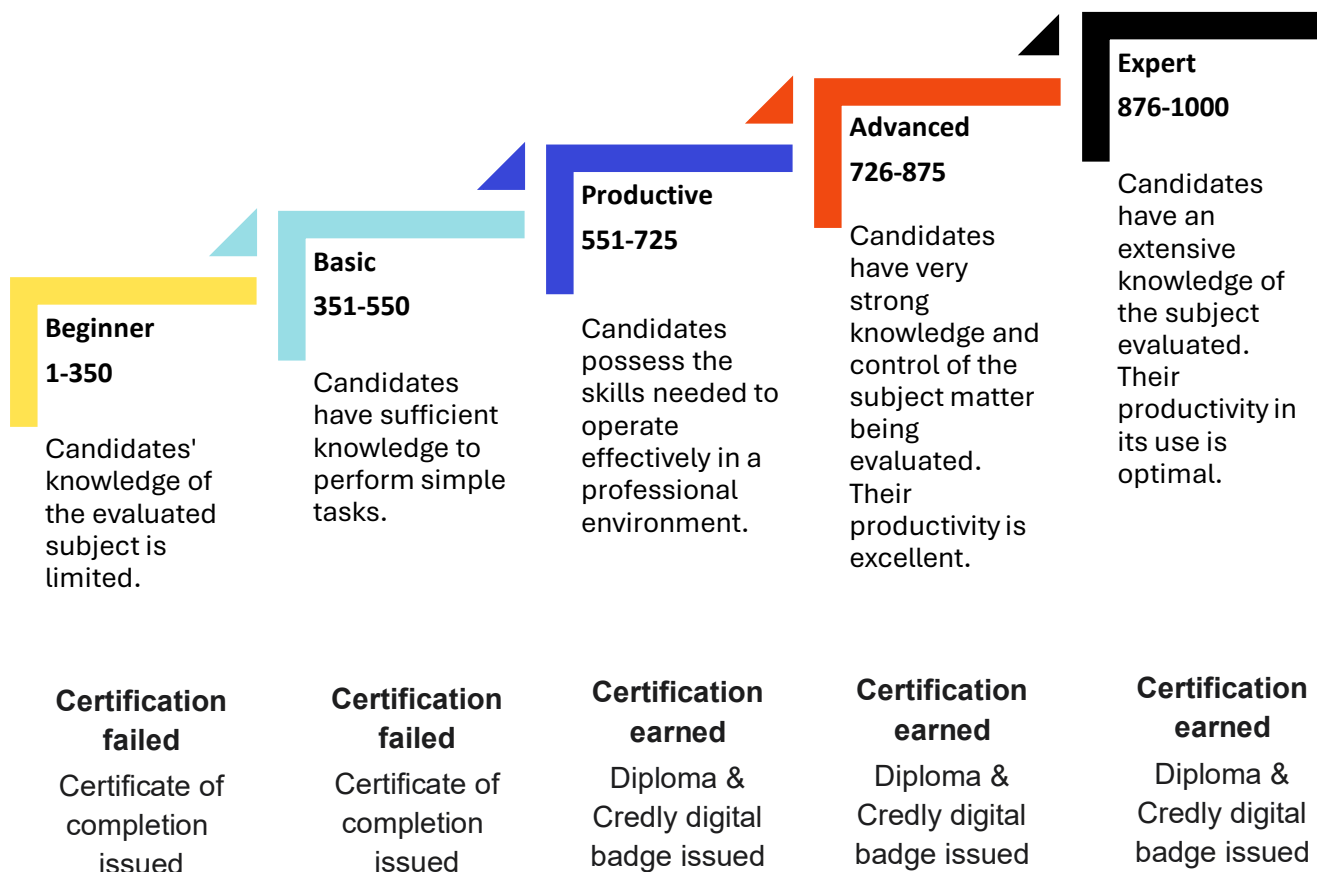
Tosa® assessment and certification solutions are designed to determine learners' proficiency levels using a single scoring scale—ranging from 0 to 1000 for certification—and divided into five levels, from “Beginner” to “Expert,” for the assessment.

The purpose of this blueprint is to specify the technical knowledge expected at each level and within each of the four main skill categories of Autodesk AutoCAD®. It is intended to help identify the most appropriate teaching or training programs to match a learner's target score.

Unique Tosa® Scoring

The Tosa® assessments and certifications are based on a unique score, divided into five levels.

- Ranging from 1 to 1000 for the certification.
- Divided into five levels, from Beginner to Expert, for the assessment.



About the Tosa® for Autodesk AutoCAD® certification

The Tosa for Autodesk AutoCAD® Certification relies on a database of more than 140 questions. It is composed of 35 questions from the question database and lasts for 1 hour. The algorithm adapts to each of the candidate's answers to adjust the difficulty level of the questions until reaching the candidate's skill limit. This ensures a precise and accurate result.

Since the test is adaptive, the series of questions that a candidate gets is unique for each test. This algorithm allows for a more accurate evaluation of the candidate's level. It also limits cheating and the memorization of questions on different passages.

Our platform allows individuals to take the certification in a classroom setting, an approved testing center, or remotely via our integrated asynchronous online proctoring solutions.

Our remote proctoring solutions provide added flexibility for both the administrator and the candidate, allowing the certification exam to be taken anywhere, at any time. The candidate only needs an internet connection and a computer equipped with a working webcam and microphone.

Candidates receive a numeric score out of 1000 points. This score corresponds to one of five proficiency levels. Candidates who score between 1 and 550 points do not earn the certification. They receive a certificate of completion in lieu of a diploma. Candidates who score 551 points or above earn the certification and will receive a diploma by email within five business days. If a candidate scores 551 points or above, they will also be eligible to receive a digital Credly badge.

There are no prerequisites to be eligible to take the exam, but to ensure a candidate is well prepared on exam day, we suggest they:

- Take at least one Tosa for Autodesk AutoCAD® adaptive assessment to estimate their level and get familiar with the test format
- Use the free practice tests on our website for training
- Follow an e-learning or training course (average duration per level is between 10 and 15 hours per certification, so around 150 hours total)

Tosa certification diplomas are valid for three years from the date of issue. This three-year period has been set to ensure that our certifications are consistently accurate and relevant, taking into account software version updates as well as the natural evolution of a candidate's skills over time. Limiting the certification period also reflects the need for life-long learning and continual professional development.

Tosa certifications can be retaken when they expire. Earners willing to improve their score and proficiency level can retake the exam at any time.

Tosa Sequence for Progressive Skills Development

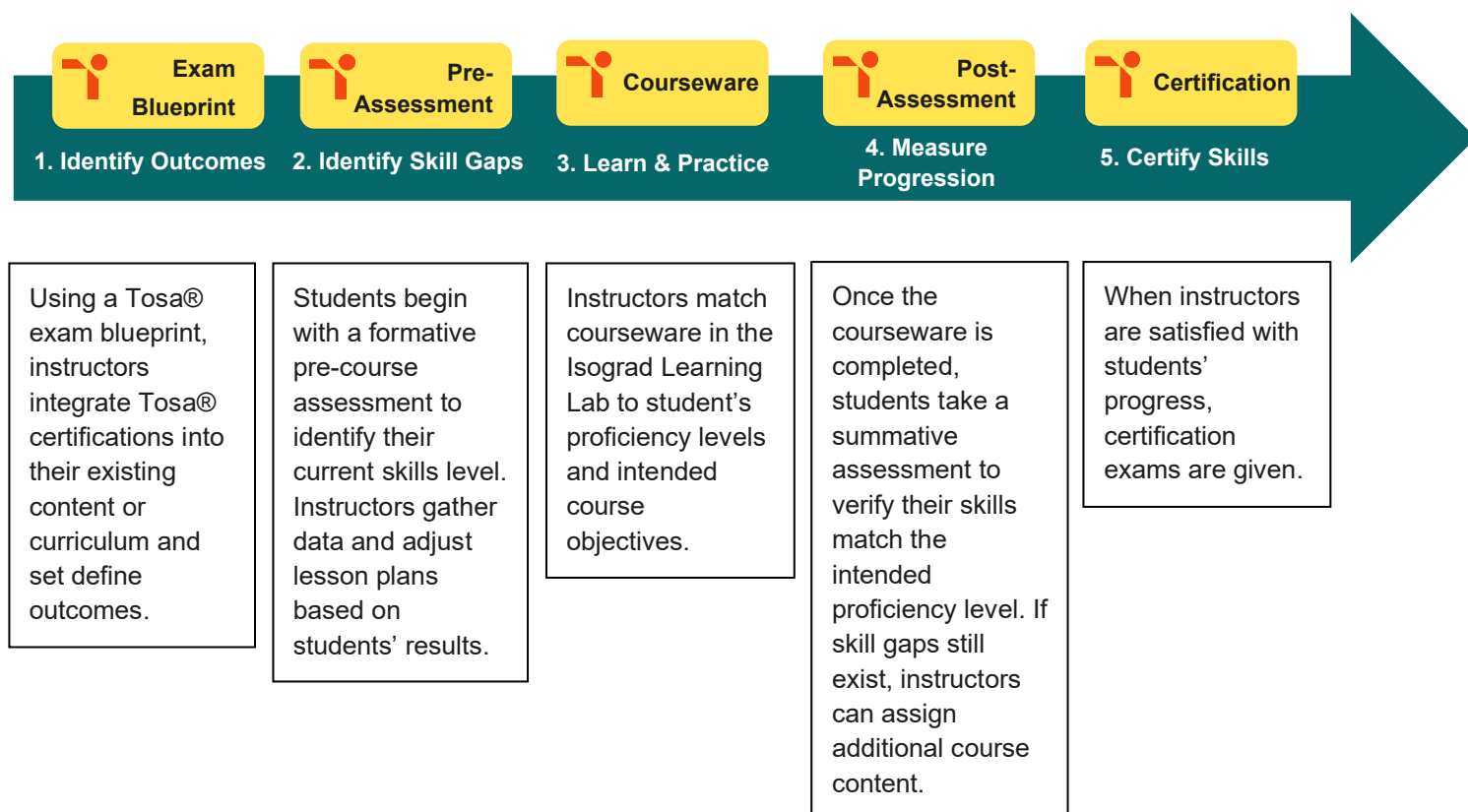
Students and professionals can tailor their certification journey with Tosa through vertical progression, demonstrating increasing proficiency in Autodesk AutoCAD®. Starting at a productive level, users can advance to advanced and expert levels as their skills grow. This clear path encourages continuous improvement and validates each stage of their development. Tosa's structure makes it easy to track progress and showcase evolving expertise.

Isograd Learning Lab

The Isograd Learning Lab is a multifaceted and adaptable courseware solution designed to help learners prepare for Tosa certification exams. It offers personalized, self-paced, and fully interactive learning experiences, equipping candidates with the essential digital skills that employers seek. These skills span a wide and varied range, applicable to learners just starting their career journey to those wishing to advance on their path.

The browser-based platform supports all learning styles with a wide array of features, including in-application exercises. These in-application capabilities allow learners to experience real-world examples of specific tasks within a given software environment. The lab includes inclusive learning resources, along with extension activities and project-based learning challenges that foster creativity and critical thinking.

All course content on the Isograd Learning Lab is aligned to a Tosa exam blueprint, which is the foundation of any Tosa certification exam. By aligning course content to an exam blueprint learners will be prepared to take the exam once they complete the courseware.



Tosa® for Autodesk AutoCAD® Level Descriptions

At each level, candidates can:

Beginner

- Employ elementary skills in AutoCAD.
- Perform simple tasks such as creating basic geometric shapes and adding text.
- Demonstrate a limited understanding of AutoCAD's user interface and drawing tools.

Basic

- Demonstrate a basic understanding of AutoCAD's user interface and functionality.
- Create simple drawings using drawing tools such as lines, circles, and rectangles.

Productive

- Demonstrate proficiency with AutoCAD's advanced features for creating and modifying drawings.
- Master the use of editing commands such as Move, Copy, and Align to manipulate objects in the drawing.
- Create and manage layers, blocks, and hatching to organize and enhance drawing structure.

Advanced

- Demonstrate in-depth knowledge of AutoCAD's advanced features, enabling a candidate to work efficiently on complex projects.
- Master tools such as parametric editing and tables to automate repetitive tasks and improve productivity.

Expert

- Demonstrate mastery of the software's full range of features.
- Create complex 2D drawings using a wide variety of advanced tools and techniques.
- Manage high-level design and engineering projects and can serve as a trainer or consultant to share knowledge and expertise with other users.

Business Applications

Attaining the Beginner score defines little or limited knowledge of the AutoCAD® application, including the application's basic functions and features, highlighting the inability to use the application in a professional environment.

For a junior CAD technician or drafting assistant, skills at this level enable a candidate to work with basic 2D drawings: create and save AutoCAD files, use simple geometric tools and line commands, and arrange basic components to draft floorplans, mechanical parts, or site layouts.

For a CAD drafter, design assistant, or junior architectural technician, these skills enable a candidate to create and refine technical drawings; adjust layouts and incorporate annotations and design elements such as blocks, hatches, or dimensions before exporting plans for printing, plotting, or digital collaboration.

For an architectural designer, mechanical drafter, civil design specialist, or CAD project coordinator, these skills enable a candidate to build and organize complex drawing files, manage layered content and external references, apply drafting standards consistently, and export documentation in the correct format for construction or engineering workflows.

For a senior CAD designer, project coordinator, engineering lead, or design project manager, these skills enable a candidate to customize the AutoCAD environment, manage complex drawing hierarchies, produce fully detailed and standards-compliant design files, and execute advanced drafting, modeling, and file integration across multidisciplinary projects.

Domain 1: Interface and Settings

Sub-domain 1: Optimizing the software environment

Covers: Use of various interface elements (toolbars, palettes, menus, etc.). Use of keyboard shortcuts to quickly access features and tools.

Beginner

- Identify the different areas of the interface (ribbon, drawing area, command line, status bar).

Basic

- Activate essential options in the status bar.
- Change the color of the drawing area and the ribbon.
- Save a file.
- Save a file under a new name.

Productive

- Use basic option settings.
- Know the main file formats and software versions.

Advanced

- Use advanced customization options effectively to adjust workspace settings, enabling an optimal configuration that enhances productivity and streamlines design operations.

Expert

- Develop advanced solutions using scripts and plugins to automate specific tasks, thereby accelerating design processes and improving operational efficiency.

Sub-domain 2: Personalizing the interface

Covers: Customizing toolbars and palettes to quickly access frequently used commands.
Configuring display options to adapt the interface to the user's specific needs.

Beginner

- Open a file.

Basic

- Modify display settings to adjust the drawing view as needed, making it easier to visualize and understand project elements.

Productive

- Use customized keyboard shortcuts and context menus to speed up common operations and navigate efficiently within the software interface.

Advanced

- Customize the software interface.
- Create new icons.
- Create keyboard shortcuts.
- Modify keyboard shortcuts.

Expert

- Contribute to the development and implementation of work standards for a team or organization, ensuring maximum consistency and efficiency in design and collaboration processes.

Sub-domain 3: Using macros

Covers: Recording sequences of repetitive actions to automate tasks. Assigning shortcuts to macros for quick access. Testing, debugging, and optimizing macros to ensure their effectiveness.

Beginner

- N/A

Basic

- Record simple macros.
- Run recorded macros to apply specific actions in the current drawing.
- Edit recorded macros to suit specific needs.
- Understand the basics of VBA code structure and AutoCAD objects.

Productive

- Create simple macros, scripts, and workspaces to automate repetitive tasks, customize the user interface, and optimize workflows in AutoCAD, thereby improving the efficiency and accuracy of design operations.

Advanced

- Use variables, loops, and control structures in VBA code.
- Create custom macros from scratch using the built-in VBA editor.

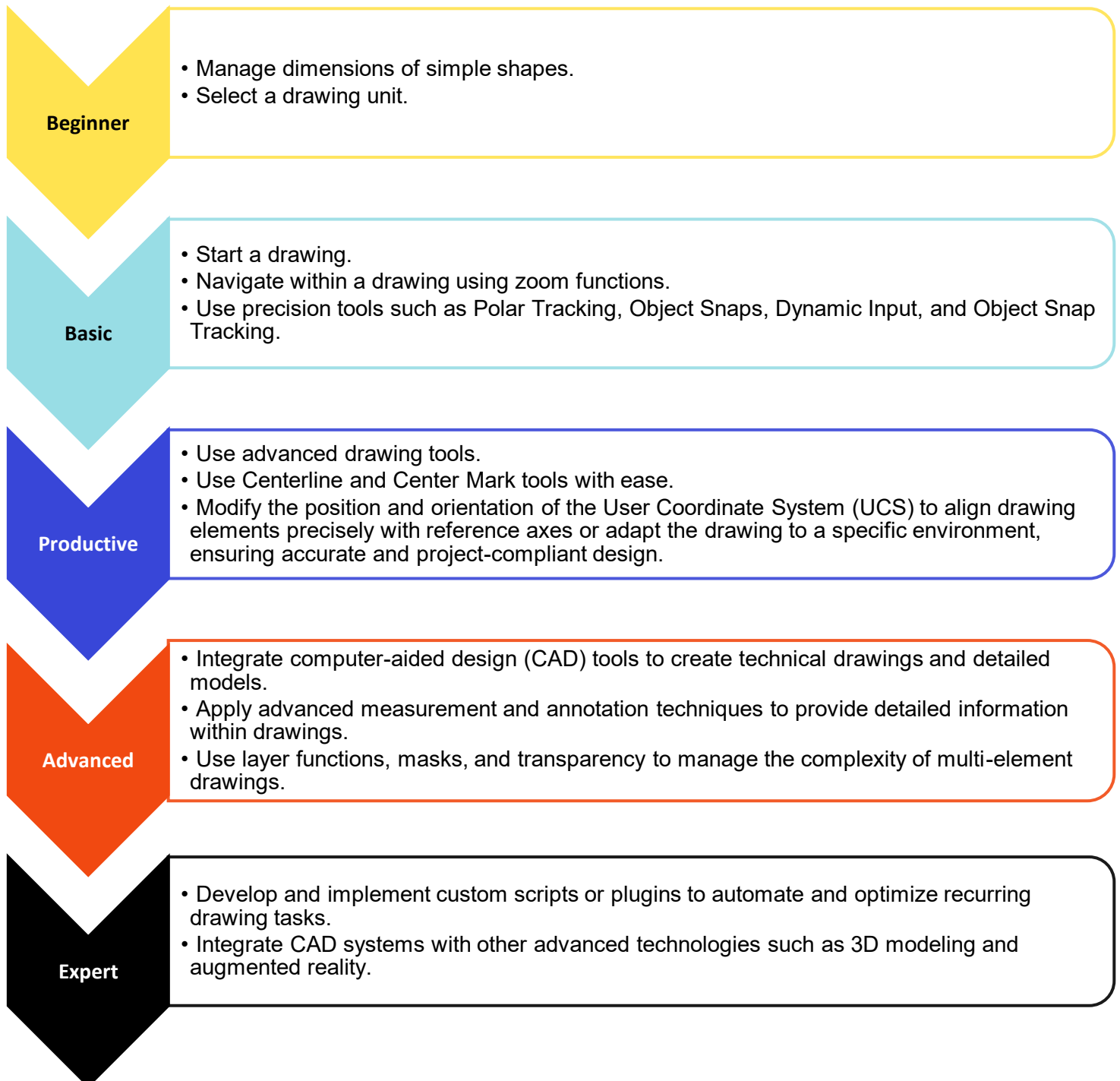
Expert

- Develop advanced macros that interact with external data.
- Design custom user interfaces for macros to enable intuitive interaction with automated features and support advanced task management and customization in AutoCAD.

Domain 2: Drawing Tools

Sub-domain 1: Using precision drawing tools

Covers: Use of measurement tools to ensure dimensional accuracy. Applying dimensioning tools to indicate precise lengths and angles. Aligning and distributing objects accurately to produce well-organized drawings.



Sub-domain 2: Creating and modifying geometric shapes

Covers: Using drawing tools to create basic and complex shapes. Modifying geometric properties of shapes according to project requirements. Organizing and structuring geometric shapes to ensure a clear presentation of the drawing.

Beginner

- Draw simple shapes (lines, circles, rectangles, arcs).
- Perform object modifications (move, copy, mirror).

Basic

- Perform object modifications (Mirror, Trim, Extend, Fillet, Chamfer, Offset), providing basic adjustments and simple transformations to drawing elements in AutoCAD.

Productive

- Master the creation of geometric shapes.
- Use modification tools effectively, such as Move, Rotate, and Scale, to make precise adjustments and appropriate transformations to drawing elements in AutoCAD, ensuring smooth editing and accurate layout.

Advanced

- Use advanced modification tools, such as array editing, duplicate removal, and space switching, to perform complex adjustments and advanced edits on drawing elements in AutoCAD.

Expert

- Use the most advanced command options, such as grips, selection filters, and object analysis and modification regardless of object type, demonstrating expert mastery of advanced editing and manipulation features in AutoCAD.

Sub-domain 3: Managing layers, blocks, and attributes

Covers: Organizing drawing elements using layers for efficient management. Creating and managing blocks to group objects and simplify modifications. Assigning attributes to objects for better identification and annotation of the drawing.

Beginner

- Understand the concept of layers.
- Identify and use basic blocks.

Basic

- Create simple blocks from existing objects and reuse them in different drawings.
- Use layers to organize drawing elements.

Productive

- Use basic and advanced modification tools.
- Insert and modify predefined blocks in drawings.

Advanced

- Use block attributes effectively to annotate and assign detailed information to objects in drawings.

Expert

- Develop complex dynamic blocks, providing advanced functionality and increased flexibility in the creation and management of reusable elements in AutoCAD, allowing dynamic adaptation to changing design needs and advanced workflow optimization.

Domain 3: Layout and Annotations

Sub-domain 1: Using hatches, text, and dimensions

Covers: Applying hatches to represent different materials or textures in the drawing. Integrating text to provide relevant information and annotations. Inserting dimensions to indicate specific sizes and measurements.

Beginner

- Create hatches.

Basic

- Set the size of text, leader lines, and dimensions.
- Configure layer color, linetype, and plot thickness.

Productive

- Apply text wrapping around simple shapes.
- Adjust wrapping to optimize layout.
- Use wrapping tools to meet specific design needs.

Advanced

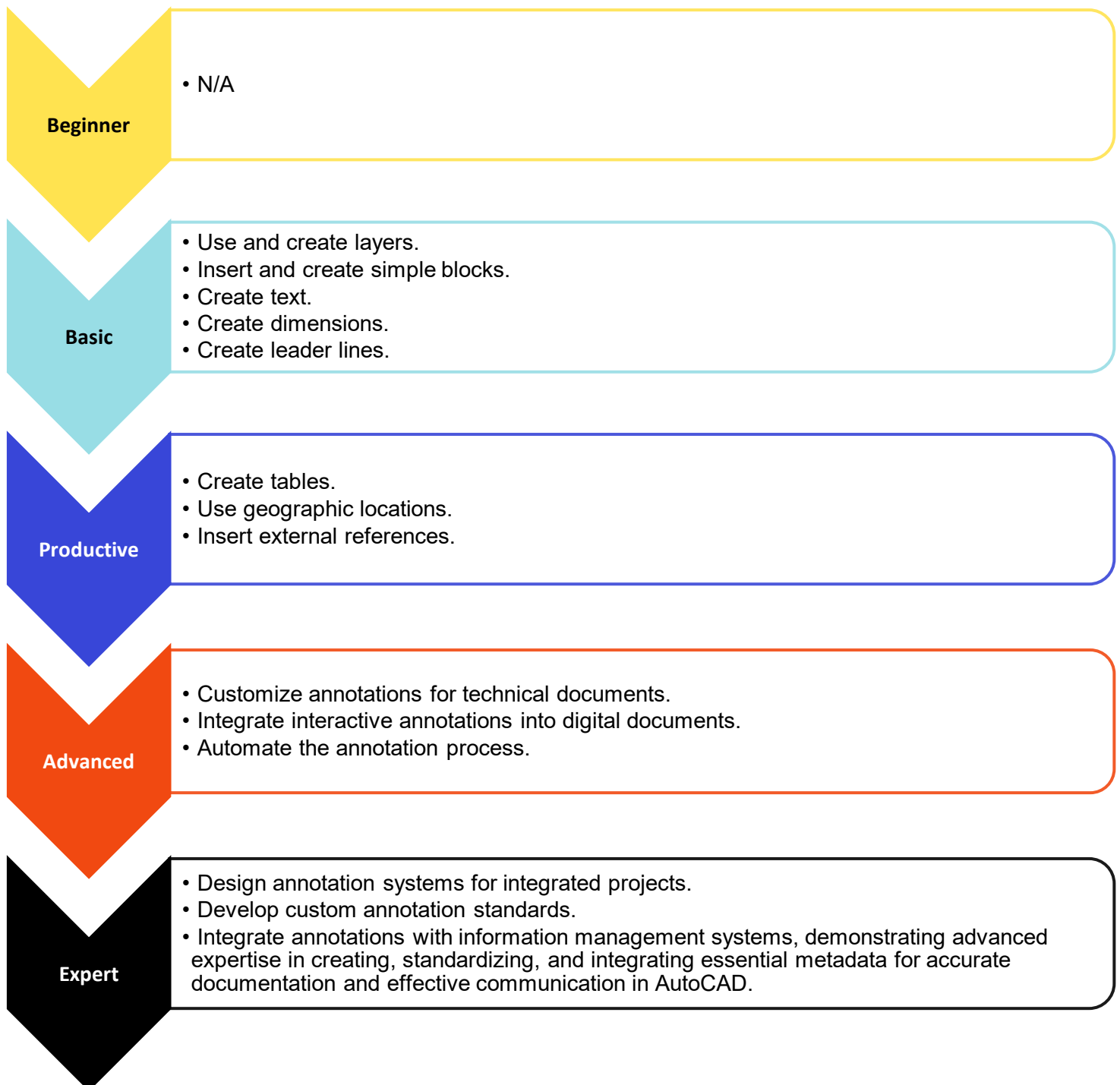
- Integrate complex wrapping for irregular shapes.
- Customize wrapping using scripts or macros.
- Evaluate and adjust wrapping for multilingual projects.

Expert

- Design wrapping strategies for complex layouts.
- Integrate wrapping into content management systems.
- Optimize wrapping for digital publishing platforms.

Sub-domain 2: Integrating annotations

Covers: Adding tables to organize and present data associated with the drawing. Drawing leader lines to highlight key elements of the drawing. Modifying annotation styles for a consistent and professional presentation.



Domain 4: Printing

Sub-domain 1: Setting up sheets

Covers: Configuring sheet settings, such as paper size and margins, to ensure optimal drawing presentation. Organizing drawing elements on the sheet for a clear and professional layout. Customizing print options to suit the specific needs of the project.

Beginner

- Select an appropriate paper size, providing a crucial first step in preparing a drawing for printing in AutoCAD.

Basic

- Configure a layout.
- Position the drawing on the layout sheet using viewports, ensuring precise placement and consistent presentation during printing.

Productive

- Master the addition and formatting of titles, parts lists, and legends on drawing sheets.

Advanced

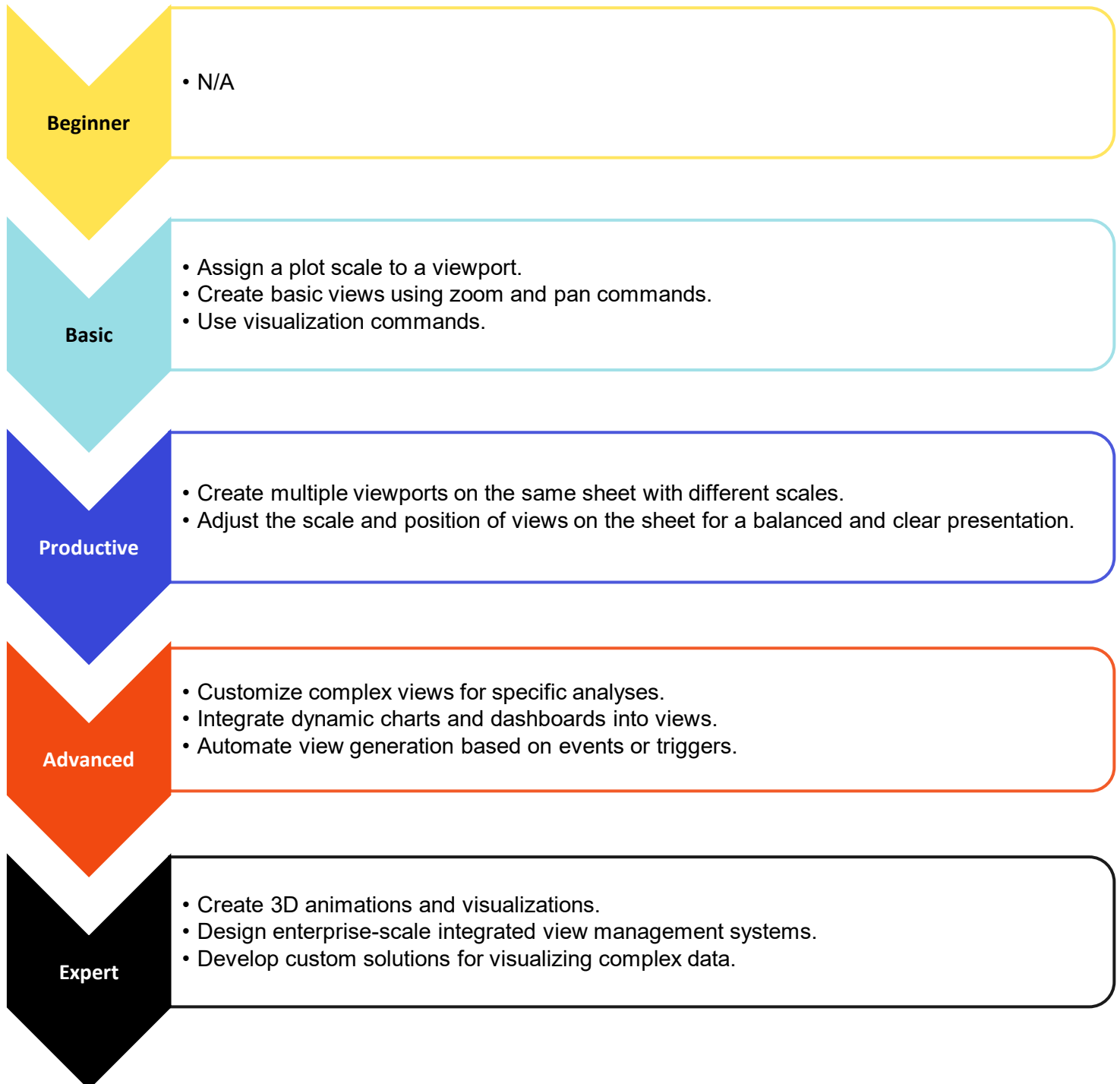
- Configure complex layouts for printing.
- Optimize sheets for advanced data analysis.
- Automate sheet setups, providing advanced and efficient management of layout settings in AutoCAD.

Expert

- Develop custom templates for sheets.
- Integrate sheet settings with ERP or CRM systems, demonstrating advanced expertise in data integration between AutoCAD and enterprise systems for efficient information synchronization.
- Establish sheet configuration standards for the organization.

Sub-domain 2: Setting up views

Covers: Creating and organizing specific views for printing or exporting to highlight particular parts of the drawing. Managing different drawing views to ensure clear, consistent, and effective presentation.



Sub-domain 3: Printing and exporting in PDF format

Covers: Configuring print settings to achieve high-quality results, such as resolution and color options. Exporting drawings to PDF for universal sharing and viewing.

Beginner

- Select a printer and start printing a drawing.

Basic

- Configure basic print settings such as paper size, scale, and orientation.
- Use PDF export options.

Productive

- Print the entire plan or a defined area only.
- Customize PDF export options.

Advanced

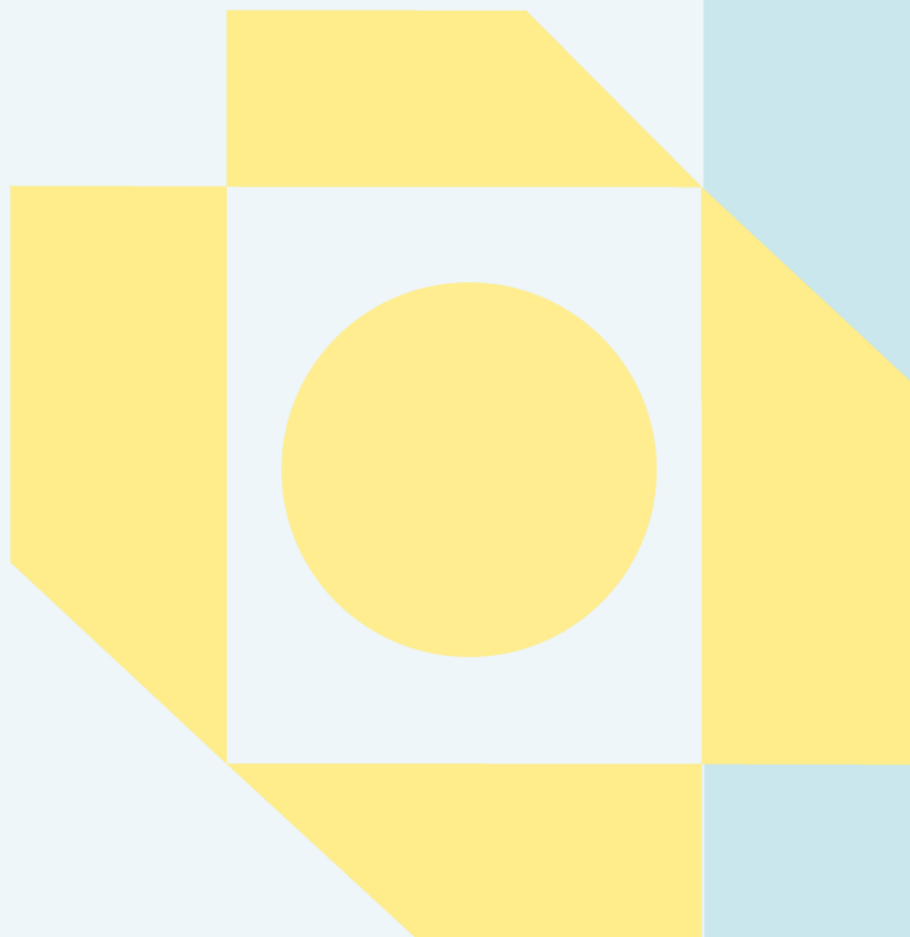
- Publish layouts.
- Combine multiple drawings into a single PDF document.

Expert

- Export layouts to various file formats (PDF, DWG, images).
- Check layout and print or PDF export quality to ensure compliance with project requirements.



Your skills. Your advantage.



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