The Plastic Surgery Milestone Project

A Joint Initiative of

The Accreditation Council for Graduate Medical Education

and

The American Board of Plastic Surgery, Inc.

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The milestones are designed only for use in evaluation of resident physicians in the context of their participation in ACGME-accredited residency or fellowship programs. The milestones provide a framework for assessment of the development of the resident physician in key dimensions of the elements of physician competency in a specialty or subspecialty. They neither represent the entirety of the dimensions of the six domains of physician competency, nor are they designed to be relevant in any other context.

Plastic Surgery Milestones

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Milestone Reporting

This document presents milestones designed for programs to use in semi-annual review of resident performance and reporting to the ACGME. Milestones are knowledge, skills, attitudes, and other attributes for each of the ACGME competencies organized in a developmental framework from less to more advanced. They are descriptors and targets for resident performance as a resident moves from entry into residency through graduation. In the initial years of implementation, the Review Committee will examine milestone performance data for each program's residents as one element in the Next Accreditation System (NAS) to determine whether residents overall are progressing.

For each period, review and reporting will involve selecting milestone levels that best describe a resident's current performance and attributes. Milestones are arranged into numbered levels. Tracking from Level 1 to Level 5 is synonymous with moving from novice to expert. These levels do not correspond with post-graduate year of education. Please note that residents in a traditional program may start at a higher level for many of the milestones due to their previous experience within the general surgery program.

Selection of a level implies that the resident substantially demonstrates the milestones in that level, as well as those in lower levels (see the diagram on page v).

Level 1: The resident demonstrates milestones expected of an incoming resident.

Level 2: The resident is advancing and demonstrates additional milestones, but is not yet performing at a mid-residency level.

Level 3: The resident continues to advance and demonstrate additional milestones, consistently including the majority of milestones targeted for residency.

Level 4: The resident has advanced so that he or she now substantially demonstrates the milestones targeted for residency. This level is designed as the graduation target.

Level 5: The resident has advanced beyond performance targets set for residency and is demonstrating "aspirational" goals which might describe the performance of someone who has been in practice for several years. It is expected that only a few exceptional residents will reach this level.

Additional Notes

Level 4 is designed as the graduation *target* and does not represent a graduation *requirement*. Making decisions about readiness for graduation is the purview of the residency program director. Study of milestone performance data will be required before the ACGME and its partners will be able to determine whether milestones in the first four levels appropriately represent the developmental framework, and whether milestone data are of sufficient quality to be used for high-stakes decisions.

Examples are provided with some milestones. Please note that the examples are not the required element or outcome; they are provided as a way to share the intent of the element.

Some milestone descriptions include statements about performing independently. These activities must occur in conformity to the ACGME supervision guidelines, as well as institutional and program policies. For example, a resident who performs a procedure independently must, at a minimum, be supervised through oversight.

To aid in evaluating the milestone levels, various assessment tools were also developed. Use of these tools is not required.

Answers to Frequently Asked Questions about the Next Accreditation System and Milestones are posted on the Next Accreditation System section of the ACGME website.

The diagram below presents an example set of milestones for one sub-competency in the same format as the milestone report worksheet. For each reporting period, a resident's performance on the milestones for each sub-competency will be indicated by:

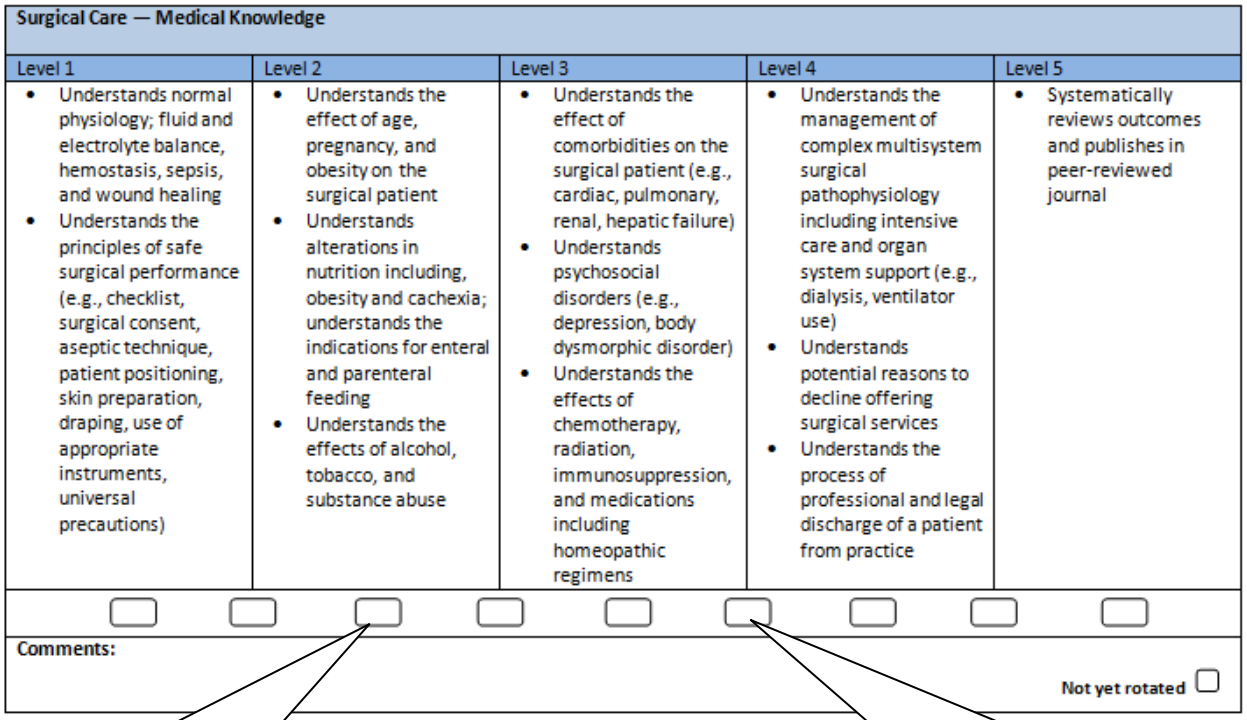
- selecting the level of milestones that best describes that resident's performance in relation to the milestones

or

- for Patient Care and Medical Knowledge milestones, selecting the option that says the resident has "Not yet rotated"

or

- for Interpersonal and Communication Skills, Practice-based Learning and Improvement, Professionalism, and Systems-based Practice milestones, selecting the option that says the resident has "Not yet achieved Level 1"



Surgical Care — Medical Knowledge

Level 1	Level 2	Level 3	Level 4	Level 5
• Understands normal physiology; fluid and electrolyte balance, hemostasis, sepsis, and wound healing • Understands the principles of safe surgical performance (e.g., checklist, surgical consent, aseptic technique, patient positioning, skin preparation, draping, use of appropriate instruments, universal precautions)	• Understands the effect of age, pregnancy, and obesity on the surgical patient • Understands alterations in nutrition including, obesity and cachexia; understands the indications for enteral and parenteral feeding • Understands the effects of alcohol, tobacco, and substance abuse	• Understands the effect of comorbidities on the surgical patient (e.g., cardiac, pulmonary, renal, hepatic failure) • Understands psychosocial disorders (e.g., depression, body dysmorphic disorder) • Understands the effects of chemotherapy, radiation, immunosuppression, and medications including homeopathic regimens	• Understands the management of complex multisystem surgical pathophysiology including intensive care and organ system support (e.g., dialysis, ventilator use) • Understands potential reasons to decline offering surgical services • Understands the process of professional and legal discharge of a patient from practice	• Systematically reviews outcomes and publishes in peer-reviewed journal

Comments:

Not yet rotated ☐

Selecting a response box in the middle of a level implies that milestones in that level and in lower levels have been substantially demonstrated.

Selecting a response box on the line in between levels indicates that milestones in lower levels have been substantially demonstrated as well as **some** milestones in the higher level(s).

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Surgical Care — Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
• Performs history and physical examination of the surgical patient and employs algorithms such as advanced trauma life support (ATLS) and advanced cardiac life support (ACLS) • Manages several uncomplicated patients, with assistance • Independently performs basic techniques in the care of the surgical patient, (e.g., nasogastric [NG] tube placement, urethral catheterization, knot tying) • Gathers and categorizes information	• Manages a surgical patient with single system disease with assistance, and deviates from algorithms when indicated • Provides surgical consultations with assistance • Independently performs routine procedures (e.g., incision and drainage, central line placement, chest tube placement, biopsy, wound closures and laceration repair) • Recognizes patterns and establishes major priorities while being able to describe at least one solution	• Manages a surgical patient with multiple system diseases with assistance • Independently manages multiple patients and surgical consultations • Recognizes exceptions and describes three or more solutions	• Independently manages a surgical patient with multiple system diseases; manages a surgical patient with one or more life threatening conditions with consultation • Manages a surgical service • Applies known solutions in novel ways; anticipates and has a plan for potential problems	• Teaches and supervises other learners who manage patients • Develops and employs simulation for teaching and assessment of surgical skills
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Comments: **Not yet rotated** ☐				

Surgical Care — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands normal physiology, fluid and electrolyte balance, hemostasis, sepsis, and wound healing • Understands the principles of safe surgical performance (e.g., checklist, surgical consent, aseptic technique, patient positioning, skin preparation, draping, use of appropriate instruments, universal precautions)	• Understands the effect of age, pregnancy, and obesity on the surgical patient • Understands alterations in nutrition, including, obesity and cachexia; understands the indications for enteral and parenteral feeding • Understands the effects of alcohol, tobacco, and substance abuse	• Understands the effect of comorbidities on the surgical patient (e.g., cardiac, pulmonary, renal, hepatic failure) • Understands psychosocial disorders (e.g., depression, body dysmorphic disorder) • Understands the effects of chemotherapy, radiation, immunosuppression, and medications, including homeopathic regimens	• Understands the management of complex multisystem surgical pathophysiology, including intensive care and organ system support (e.g., dialysis, ventilator use) • Understands potential reasons to decline offering surgical services • Understands the process of professional and legal discharge of a patient from practice	• Systematically reviews outcomes and publishes in peer-reviewed journals
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Comments: **Not yet rotated** ☐				

Wound Care — Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
• Performs history and physical examination of patients with acute or chronic wounds and burns • Assists with procedures (e.g., wound preparation, negative pressure therapy); initiates burn resuscitation • Provides routine post-operative care	• Explains risks and benefits of wound procedures and obtains consent • Performs routine procedures (e.g., skin grafts, local flaps, burn debridement, and regional flaps) with assistance • Recognizes complications (e.g., infections, exposed vital structures, ischemia) and enlists help; prescribes rehabilitation program and initiates preventive measures	• Formulates a treatment plan with assistance for wound preparation and closure • Independently performs routine procedures; performs complex procedures (e.g., microvascular flaps) with assistance • Initiates treatment for wound recurrence and manages complications with assistance	• Independently formulates a treatment plan for wound preparation and closure, including for patients with comorbidities and previous surgeries • Functions as member of wound care team • Independently performs complex procedures (e.g., microvascular flap, surgical treatment of burn scar contracture) • Independently manages complications and optimizes functional outcomes through physical and occupational therapy	• Designs cost-effective management plan • Leads a multidisciplinary wound care team • Helps lead a burn center • Develops a plan for vocational rehabilitation
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Wound Care — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands pathophysiology of wounds, burns, pressure ulcers, and necrotizing infections • Understands prevention of acute and chronic wounds and burn resuscitation	• Understands indications for interventions in acute and chronic wounds and burns • Recognizes populations at risk of developing wounds (e.g., spinal cord injury) • Understands the diagnostic tools used to asses and stage wounds (e.g., cultures, biopsies, imaging)	• Understands treatments of burns, pressure ulcers radiation wounds, and necrotizing infections • Understands surgical principles of routine procedures (e.g., wound preparation, biologic dressings, skin substitutes, grafts)	• Understands anticipated course and outcomes of treatment (e.g., dressing changes vs. surgical closures) • Understands surgical principles of complex procedures (e.g., vascularized soft tissue coverage, hyperbaric oxygen, bio-scaffolds)	• Systematically reviews outcomes and publishes in peer-reviewed journals
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Tissue Transfer — Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
• Performs history and physical examination of patients with simple and complex reconstructive problems • Independently performs dressing changes, negative pressure wound therapy, and uses topicals; assists with complex wound care • Provides routine post-operative care for patients with complex wounds requiring loco-regional tissue transfer	• Explains risks and benefits, and obtains consent for flaps, grafts, and complex wound care options. • Performs routine procedures (e.g., debridement, complex closures, split and full thickness skin grafts, adjacent tissue transfers, bone graft harvesting) with assistance; performs microsurgical repairs in a simulated environment • Provides post-operative care with assistance for microvascular tissue transfer, and recognizes complications (e.g., dehiscence, infection, flap compromise)	• Formulates a treatment plan (risk/benefits, options/alternatives) with assistance for complex reconstructive surgery • Independently performs routine procedures; performs complex procedures (e.g., microvascular tissue transfers, nerve repairs, and grafting) with assistance • Manages complications with assistance	• Independently formulates a treatment plan for complex reconstructive surgery in patients with comorbidities and previous surgeries • Independently performs complex procedures • Independently manages complex complications (e.g., microvascular flap compromises, loco-regional tissue transfer failures); manages secondary deformities	• Leads surgical team through complex composite tissue reconstruction • Performs prefabricated composite tissue transfer • Performs vascularized composite allotransplantation
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Tissue Transfer — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands the physiology and pathophysiology of grafts, flaps, tissue expansions, and microvascular transfers • Understands basic surgical anatomy of grafts, flaps, tissue expansion, and microvascular transfers	• Understands the basic surgical treatments for soft tissue defects, and draws basic types of flaps (e.g. adjacent tissue transfer, axial and perforator flaps) • Demonstrates knowledge of surgical instrumentation, devices and suture materials used in tissue transfer	• Understands the anatomy and indications for options in tissue transfer, and lists potential treatment options for various defects • Understands surgical principles of treatment options for complicated wounds; understands complex tissue transfer procedures, (e.g., composite microvascular transfers, nerve repair and grafting)	• Independently analyzes and selects treatment options for soft tissue defects • Understands alternatives following complications	• Systematically reviews tissue transfer options and publishes in peer-reviewed journals • Understands the principles of tissue engineering
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Congenital Anomalies — Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
• Performs history and physical examination of patients with craniofacial anomalies • Assists with congenital anomaly and craniofacial procedures (e.g., making incisions and performing skin closures) • Provides routine post-operative care for pediatric patients	• Explains the risks and benefits of treatment for routine congenital anomalies, (e.g., cleft surgery and giant congenital nevi, vascular anomalies), and obtains consent • Performs routine procedures for congenital anomalies (e.g., tissue expansion, prominent ear correction) with assistance • Recognizes complications (e.g., airway compromises, feeding difficulties) and gets multidisciplinary consults	• Formulates a treatment plan with assistance for routine congenital anomalies • Independently performs routine procedures; performs complex procedures (e.g., cleft lip, palate repair) with assistance • Manages complications (e.g., exposed expanders, palatal fistulae) with assistance	• Formulates a treatment plan, with assistance for craniofacial surgery • Independently performs complex procedures • Independently manages complications and secondary deformities of congenital anomalies	• Independently treats patients with complex craniofacial anomalies (e.g., craniosynostosis, hemifacial microsomia)
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Congenital Anomalies — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
• Describes normal and abnormal embryology of clefts and craniofacial anomalies • Understands the normal anatomy of the craniofacial soft tissue and skeleton	• Understands the diagnosis, basic surgical treatments, and special needs of craniofacial patients • Understands the concepts of staged interdisciplinary treatment in the care of the cleft and craniofacial patient	• Understands the indications for and the timing of the staged treatment protocols for cleft, craniofacial, and vascular anomaly patients • Understands the anatomy and surgical principles of repairs (e.g., the steps of a cleft repair, microtia)	• Understands the effects of treatment for craniofacial patients, such as therapies for vascular anomalies and cleft care • Understands the anatomy and surgical principles of craniofacial procedures (e.g., cranial vault remodeling, distraction osteogenesis, secondary cleft deformities)	• Understands the composition and management of multidisciplinary craniofacial team
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Comments: **Not yet rotated** ☐				

Head and Neck — Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
• Performs history and physical of the patient with skin cancer and aero-digestive tract malignancy • Assists with procedures (e.g., skin biopsies, excision of minor skin lesions) • Provides routine post-operative care; initiates cancer surveillance	• Explains risks and benefits of extirpative and reconstructive procedures and obtains consent • Performs routine excisions and reconstructions (e.g., adjacent tissue transfer and skin graft) with assistance • Recognizes complications (e.g., bleeding, orocutaneous fistula, flap compromise) and enlists help; prescribes post-operative rehabilitation	• Formulates a treatment plan with assistance • Independently performs routine procedures; performs complex procedures (e.g., pedicled flaps, myocutaneous flaps, repair of complex eyelid and full thickness nasal defects) with assistance • Manages complications with assistance	• Independently formulates a treatment plan, including for patients with comorbidities • Independently performs complex reconstructions, including microvascular, bone, nerve, and soft tissue transfers • Independently manages complications (e.g., failed microvascular transfers)	• Helps lead a multidisciplinary head and neck cancer team
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Comments: **Not yet rotated** ☐				

Head and Neck — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands benign and malignant diseases, including the skin and aero-digestive tract • Understands the anatomy of the head and neck (e.g., periorbita, salivary glands, and lymphatic systems) • Understands the epidemiology and staging of head and neck and skin cancer	• Understands surgical treatments for cancers of the head and neck (e.g., melanoma, parotid, and pharynx) • Understands the principles of extirpation (e.g., margins) and reconstruction for lesions of the head and neck; understands diagnostic workup and imaging studies • Understands the role of additional modalities (e.g., tracheostomy, feeding tube)	• Understands the indications for surgical and non-surgical treatment and ancillary procedures (e.g., sentinel node biopsy) • Understands the principles of routine procedures (e.g., wedge resections of the lip, local facial flaps) • Understands the effects of prior treatment modalities on reconstructive options (e.g., osteoradionecrosis) • Understands the management of regional and distant metastases	• Understands the sequelae of interventions (e.g., surgical deformities, long-term outcomes) • Understands the principles of complex procedures (e.g., neck dissection, microsurgical bone transfer, total nasal reconstruction) • Understands adjunctive reconstructive options (e.g., dental implants, maxillofacial prosthetics)	• Understands novel diagnostic and treatment modalities for head and neck cancer
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Comments: **Not yet rotated** ☐				

Maxillofacial Trauma — Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
• Performs history and physical examination and orders diagnostic and imaging studies • Triages and performs ATLS protocols; assists with procedures (e.g., closing lacerations and early stabilization of fractures) • Provides routine post-operative care	• Elicits the focused clinical findings associated with common facial fractures and soft tissue injuries; interprets radiological findings; explains the risks and benefits of treatment and obtains consent • Performs routine procedures (e.g., laceration repair, maxillomandibular fixation [MMF], open reduction internal fixation [ORIF]) with assistance • Recognizes complications (e.g., airway compromise, cerebrospinal fluid [CSF] leak) and enlists help	• Formulates a treatment plan with assistance • Independently performs routine procedures; performs complex procedures (e.g., nasoethmoid [NOE], panfacial fracture treatment) with assistance • Manages complications with assistance	• Independently formulates a treatment plan, including for patients with polytrauma and comorbidities • Independently performs complex procedures • Independently manages complications (e.g., nasal airway obstruction, facial nerve injuries)	• Manages complex secondary deformities (e.g., enophthalmos, malocclusion)
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Comments: **Not yet rotated** ☐				

Maxillofacial Trauma — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands etiology and incidence of the routine facial soft tissue injuries and fractures • Understands the anatomy of the head and neck; describes the pattern of facial fractures • Understands the risks of other injuries (e.g., airway compromise, cervical spine injury)	• Understands etiology and incidence of injuries to associated structures and late effects of injury (e.g., enophthalmos, malocclusion) • Understands the principles of surgical treatment (e.g., open vs. closed approaches, methods of fixation) • Understands the management of associated injuries (e.g., tracheostomy)	• Understands indications and timing for the operative and non-operative treatment of facial trauma • Understands the surgical principles of routine procedures (e.g., eyelid laceration repair, MMF, closed nasal reduction)	• Understands the late sequelae of facial trauma (e.g., ectropion, airway obstruction, mucocele) • Understands the surgical principles of complex procedures (e.g., canalicular repair, repair NOE with telecanthus)	• Systematically reviews outcomes and publishes in peer-reviewed journals
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Comments:				
Not yet rotated ☐				

Facial Aesthetics — Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
• Performs focused history and physical examination of patients presenting with aesthetic facial concerns • Assists with facial aesthetic procedures, (e.g., making incisions and simple suture skin closure)	• Explains risks and benefits of facial aesthetic procedures and obtains consent • Performs routine facial aesthetic procedures (e.g., upper blepharoplasty, scar revision, harvesting of cartilage grafts, fat injections, injection of neuromodulators) with assistance • Recognizes complications (e.g., hematoma, seroma, wound dehiscence, necrosis, chemosis, brow ptosis) and enlists appropriate help	• Formulates a treatment plan (risks, benefits, options, and alternatives) with assistance • Independently performs routine procedures; performs complex procedures (e.g., facelifts, necklifts, tip rhinoplasty, chemical peels, laser resurfacing) with assistance • Manages complications (e.g., scleral show, brow ptosis, eyelid ptosis, soft tissue granulomas) with assistance	• Independently assesses, diagnoses, and formulates treatment plans, including for patients with comorbidities, previous surgeries, and complicating factors • Independently performs procedures (e.g., primary rhinoplasties, lower blepharoplasties, and facelifts) • Independently manages complications	• Independently treats complex secondary deformities of facial aging/prior surgery • Leads an integrated center for the treatment of facial aesthetics
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Comments: **Not yet rotated** ☐				

Facial Aesthetics — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands normal anatomy of skin and soft tissue of the face • Describes the normal relationships, angles, and proportions in facial analysis	• Understands concepts of facial aging and basic surgical and non-surgical treatments for the aging face • Understands concepts of skin resurfacing (e.g. laser science, chemical peel) • Appreciates the assessment and impact of psychological factors on outcomes in aesthetic facial surgery	• Understands indications for various treatment options for addressing the aging face • Understands anatomy and principles of surgical and non-surgical procedures, (e.g., fillers, peels, neuromodulators, browlifts, blepharoplasties, facelifts, rhinoplasties, necklifts, and fat grafting)	• Understands the effects of treatment of surgical and non-surgical options and understands possible complications • Understands anatomy and surgical principles of complex treatments for the aging face, (e.g., endoscopic procedures, deep plane facelifts, secondary rhinoplasties), and the dynamics of combining various procedures for treatment of facial aging	• Understands and contributes to outcomes research in aesthetic facial surgery
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Comments:				
Not yet rotated ☐				

Non-Cancer Breast Surgery — Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
• Performs history and physical examination of patients with a benign breast condition and orders diagnostic tests and imaging studies • Assists with breast procedures (e.g., making incisions, skin closures) • Provides routine post-operative care for the breast patient	• Explains risks and benefits of breast procedures and obtains consent; is able to interpret diagnostic studies • Performs routine procedures (e.g., reduction mammoplasty, gynecomastia, mastopexy) with assistance • Recognizes complications (e.g., hematoma, infections, implant complications) and enlists help	• Formulates a treatment plan with assistance for routine breast procedures (e.g., primary breast augmentation, reduction, and mastopexy) • Independently performs routine procedures; performs complex procedures (e.g., augmentation/ mastopexy, congenital breast deformity) with assistance • Manages complications with assistance	• Independently formulates a treatment plan, including for patients with comorbidities or previous unsatisfactory outcomes; documents medical necessity • Independently performs complex procedures; adapts standard treatment plans to special circumstances (e.g., prior surgical scars, unsatisfactory outcomes of previous surgery) • Independently manages complications, secondary deformities, and the dissatisfied patient	• Systematically reviews outcomes and publishes in peer-reviewed journals
☐	☐	☐	☐	☐	☐	☐	☐	☐
Comments: **Not yet rotated** ☐				

Non-Cancer Breast Surgery — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands benign breast conditions (e.g., ptosis, hypermastia, gynecomastia, involutional changes, and congenital anomalies) • Understands the anatomy, embryology, and physiology of the breast • Understands principles of imaging for benign breast procedures	• Understands surgical treatment for benign breast conditions • Understands concepts of symmetry, aesthetic ideals, and proportions of the breast • Understands characteristics of breast prostheses and long-term monitoring	• Understands indications for treatment options (e.g., augmentation, skin/parenchyma reduction) • Understands principles of routine surgical procedures (e.g., augmentation mammaplasty, reduction mammaplasty, mastopexy)	• Understands effects of surgical procedures on nipple areolar perfusion, breast sensation, and lactation • Understands principles of complex surgical procedures (e.g., augmentation/ mastopexy, tuberous breast deformity) • Understands evolving technologies such as fat grafting	• Systematically reviews outcomes of patient cohorts and publishes in peer-reviewed journals
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Comments:				
Not yet rotated ☐				

Breast Reconstruction — Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
• Performs history and physical examination of the patient with breast cancer • Assists with procedures (e.g., making incisions, skin closures) • Provides routine post-operative care	• Explains risks and benefits of breast reconstruction procedures and obtains consent • Performs routine procedures (e.g., flap elevation, tissue expanders) with assistance • Recognizes complications (e.g., flap compromise, implant complication) and enlists help	• Formulates a treatment plan with assistance • Independently performs routine procedures; performs complex procedures (e.g., microsurgical procedure, treatment of opposite breast) with assistance • Manages complications with assistance	• Independently formulates a treatment plan, including for patients with comorbidities, previous surgeries, and complicating factors • Independently performs complex procedures • Independently manages complications and secondary deformities	• Manages complicated patients with multiple previous treatment failures • Helps lead interdisciplinary team and teaches breast reconstructive procedures
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Comments: **Not yet rotated** ☐				

Breast Reconstruction — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands pathophysiology of malignant breast disease • Understands the anatomy of breast and lymphatic drainage	• Understands surgical treatments for malignant breast disease; understands sentinel lymph node mapping and metastatic patterns • Understands surgical principles of implant-based breast reconstruction	• Understands indications for adjuvant treatments and the impact of primary and adjuvant treatments on reconstruction • Understands surgical principles of pedicled flap breast reconstruction	• Understands the late effects of radiation and chemotherapy on breast reconstruction • Understands surgical principles of microsurgical breast reconstruction (e.g., transverse rectus abdominis myocutaneous [TRAM], deep inferior epigastric perforator [DIEP], superior gluteal artery perforator [SGAP], and transverse upper gracilis [TUG])	• Systematically reviews outcomes and publishes in peer-reviewed journals
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Comments:				
Not yet rotated ☐				

Reconstruction of the Trunk and Perineum — Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
• Performs history and physical examination of patients with trunk/perineal defects and orders diagnostic and imaging studies • Assists with procedures (e.g., making incisions, closing wounds) • Provides routine post-operative care, including pressure relief management	• Explains risks and benefits of procedures (e.g., components separation, pressure ulcer reconstruction) and obtains consent; interprets diagnostic and imaging studies • Performs routine procedures (e.g., debridement, component separation, myocutaneous flap) with assistance • Provides critical care, recognizes complications (e.g., organ injury, organ system failure) and enlists help; initiates rehabilitation	• Formulates a treatment plan with assistance for routine conditions (e.g., sternal wounds, primary ventral hernia, and primary pressure ulcers) • Independently performs routine procedures; Performs complex procedures (e.g., composite chest wall reconstruction, urogenital reconstruction)with assistance • Manages complications (e.g., soft-tissue loss, flap compromise) with assistance	• Independently formulates a treatment plan, including for patients with comorbidities (e.g., previous surgeries, enterocutaneous fistulae, congenital anomalies) • Independently performs complex procedures • Independently manages complications and secondary deformities	• Independently treats complex secondary deformities of the trunk and perineum
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Comments: **Not yet rotated** ☐				

Reconstruction of Trunk and Perineum — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands congenital, benign, and malignant diseases of the trunk/perineum • Understands the anatomy of the chest wall, abdominal wall, back, and perineum • Understands respiratory mechanics, nutrition, and pressure offloading	• Understands the concepts of restoration of chest wall stability, return of abdominal domain, and wound control • Understands indications for coverage of exposed vital structures, provision of dynamic support, and functional restoration • Understands staged management of major defects (e.g., negative pressure therapy)	• Understands surgical treatments for irradiated wounds, congenital anomalies, hernias, chest wall defects, pressure ulcers • Understands surgical principles of routine procedures (e.g., pressure ulcer reconstruction, components separation hernia repair) • Understands the principles and indications for biologic and synthetic materials	• Understands the effects of treatment on gastrointestinal, cardiopulmonary and genitourinary, and musculoskeletal functions • Understands surgical principles of complex procedures (e.g., perineal reconstruction, recurrent ventral hernia, composite chest wall defects)	• Systematically reviews outcomes and publishes in peer-reviewed journals
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Comments: **Not yet rotated** ☐				

Upper Extremity Trauma — Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
• Performs history and physical examination and orders diagnostic and imaging studies • Assists with procedures (e.g., making incisions, skin closures, applying splints and dressings) • Provides routine post-operative care	• Explains the risks and benefits of hand trauma procedures and obtains consent; interprets imaging studies • Performs routine procedures with assistance (e.g., repair of simple hand fractures, tendon, nerve lacerations) • Recognizes complications (e.g., vascular compromise, compartment syndrome) and enlists help; prescribes post-operative rehabilitation	• Formulates a treatment plan, with assistance, for common hand injuries (e.g., tendon injury, nerve lacerations, fracture/dislocation) • Independently performs routine procedures; performs complex procedures (e.g., repair of the mangled hand and revascularization, microvascular flap coverage) with assistance • Manages complications with assistance	• Independently formulates a treatment plan, including for patients with comorbidities and a devascularized or mangled extremity • Independently performs complex procedures • Independently manages complications and secondary deformities (e.g., contractures, nonunions, tendon rupture)	• Contributes to the practice of hand surgery through research and innovative treatments • Manages work-related injuries and return-to-work issues • Manages chronic regional pain syndromes
☐	☐	☐	☐	☐	☐	☐	☐	☐
Comments: **Not yet rotated** ☐				

Upper Extremity Trauma — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands common fractures/dislocations and soft tissue injuries • Understands of the anatomy, function, and basic biomechanics of the upper extremity • Understands principles of splinting and casting	• Understands principles of soft tissue coverage and bony stabilization • Understands principles of bone fixation and flaps • Understands the diagnosis and treatment of vascular injuries and acute compartment syndrome	• Understands complicating factors (e.g., exposed critical structures, bone loss, vascular compromise) • Understands the principles of routine vessel, nerve, tendon, and bony repairs • Understands the principles of post-operative hand therapy regimens	• Understands biomechanics of tendon transfers • Understands the principles of complex procedures (e.g., nerve grafting, secondary tendon reconstruction, replantation) • Understands the principles of prosthetics, secondary rehabilitation, and chronic regional pain syndromes	• Understands principles of nerve and tendon transfers for combined nerve and brachial plexus injuries • Understands the composition and management of multidisciplinary hand center
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Comments:				
Not yet rotated ☐				

Non-trauma Hand — Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
• Performs history and physical examination of patients with non-traumatic hand disorders • Assists with procedures (e.g., skin incisions, abscess drainage, skin closures, and injections)	• Explains risks and benefits of non-trauma and congenital hand reconstruction procedures and obtains consent. Interprets imaging and electrodiagnostic studies • Performs routine procedures (e.g., nerve decompression, ganglion, tumor excision) with assistance	• Formulates a treatment plan, with assistance, for routine hand conditions (e.g., infections, degenerative arthritis, ganglion, tumors, nerve compressions, and Dupuytren's contracture) • Independently performs routine procedures; performs complex procedure (e.g., arthroplasty, contracture release, syndactyly reconstruction tendon transfers) with assistance	• Independently formulates a treatment plan, including for patients with comorbidities, and complex conditions (e.g., previous hand surgeries, complex syndactyly) • Independently performs complex procedures	• Formulates a treatment plan for rheumatoid deformities and complex congenital hand anomalies • Performs implant arthroplasty, pollicizations, and toe-to-hand transfers • Helps manage an interdisciplinary hand surgery team
☐	☐	☐	☐	☐	☐	☐	☐	☐
Comments: **Not yet rotated** ☐				

Non-trauma Hand — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands the pathophysiology of non-traumatic hand disease (e.g., infection, degenerative change, compression neuropathy) • Understands anatomy, biomechanics, and embryology of the hand and upper extremity	• Understands treatments for infection, degenerative change, compression neuropathy • Understands concepts of pharmacologic management, injections, incision, and drainage • Understands principles of local and regional upper extremity anesthesia	• Understands treatments for metabolic and contracture processes • Understands surgical principles of routine procedures (e.g., nerve releases, fusions, tumor and ganglion excisions, and contracture releases) • Understands principles of post-operative hand therapy regimens	• Understands treatments for autoimmune and congenital anomalies • Understands surgical principles for complex procedures (e.g., tendon transfers, arthroplasties and ligament reconstructions, syndactyly release)	• Understands anatomy and surgical principles for complex procedures (e.g., rheumatoid hand reconstruction, nerve transfers, thumb reconstructions, congenital hand reconstructions)
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Comments: **Not yet rotated** ☐				

Cosmetic Trunk and Lower Extremity — Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
• Performs history and physical examination and identifies aesthetic and functional problems • Assists with procedures (e.g., making incisions, skin closures) • Provides routine post-operative care	• Explains risks and benefits of routine procedures (e.g., liposuction, abdominoplasty, brachioplasty, thigh lift) and obtains consent • Performs routine procedures (e.g., abdominoplasty, panniculectomy) with assistance • Recognizes complications (e.g., seroma, thromboembolism, skin loss) and enlists help	• Formulates a treatment plan with assistance; recognizes realistic and unrealistic patient expectations • Independently perform routine procedures; performs complex procedures (e.g., circumferential body lift, brachioplasty) with assistance • Manages complications with assistance	• Independently formulates a treatment plan, including for patients with comorbidities, previous surgeries, and massive weight loss; counsels patients regarding expectations • Independently performs complex procedures • Independently manages complications and secondary deformities; treats the dissatisfied patient	• Manages complicated patients with multiple prior surgeries and unsatisfactory results
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Comments:				
Not yet rotated ☐				

Cosmetic Trunk and Lower Extremity — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands pathophysiology of obesity, lipodystrophy, and the effects of aging, parity, and massive weight loss • Understands anatomy of the trunk and extremities, and aesthetic ideals • Understands role of diet and exercise in weight management • Understands risk factors, diagnosis, and treatment of thromboembolic events	• Understands bariatric surgery options and their metabolic effects; understands factors in patient selection for body contouring • Understands physiologic effects of liposuction • Understands gender differences in aesthetic ideals • Understands the benefit of multidisciplinary bariatric programs	• Understands indications for treatment options in massive weight loss patients; understands aesthetic interrelation of procedures and safety of combined procedures • Understands surgical principles of routine procedures (e.g., liposuction, abdominoplasty, medial thigh lift, brachioplasty)	• Differentiates between functional and aesthetic conditions • Understands surgical principles of complex and combined procedures	• Systematically reviews outcomes and publishes in peer-reviewed journals
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Comments: **Not yet rotated** ☐				

Lower Extremity — Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
• Performs history and physical examination and orders diagnostic and imaging studies • Assists with procedures (e.g., making incisions, skin closure, applying splints and dressings) • Provides routine post-operative care	• Explains risks and benefits of procedures and obtains consent; interprets diagnostic studies • Performs routine procedures (e.g., skin grafts) with assistance • Recognizes complications (e.g., vascular compromise, compartment syndrome) and enlists help; prescribes post-operative rehabilitation	• Formulates a treatment plan with assistance • Performs routine procedures independently; performs complex procedure (e.g., regional flaps, microvascular tissue transfer) with assistance • Manages complications with assistance	• Independently formulates a treatment plan, including for patients with comorbidities, ischemia, and failed prior surgery • Performs complex procedures independently • Independently manages complications and secondary deformities	• Helps lead a multidisciplinary limb salvage program
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Comments: **Not yet rotated** ☐				

Lower Extremity — Medical Knowledge				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands pathophysiology of acquired and congenital conditions of the lower extremity (e.g., venous and arterial insufficiency, diabetes mellitus, lymphatic disease, cancer, trauma) • Understands the anatomy of the lower extremity • Understands classification systems for bone and soft tissue loss	• Understands principles of non-operative treatment for lower extremity conditions (e.g., venous hypertension, neuropathic ulcers, and lymphedema) and the contraindications to limb salvage • Understands the principles of surgical approaches and timing for congenital and acquired conditions	• Understands indications for treatment of lower extremity conditions (e.g., musculoskeletal injury, arterial insufficiency, exposed prostheses, tumor resection, and compartment syndrome) • Understands the surgical principles of routine procedures (e.g., debridement, skin grafting, pedicled musculoskeletal, and fasciocutaneous flaps)	• Understands the effect of procedures on quality of life and the role of adjunctive modalities (e.g., prostheses, rehabilitation) • Understands the surgical principles of complex procedures (e.g., perforator flaps, microvascular reconstruction for lower limb salvage)	• Understands the principles of nerve and tendon transfers of the lower extremity, and microsurgical treatment of lymphedema
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Comments: **Not yet rotated** ☐				

Patient Safety — Systems-based Practice				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands the differences between medical errors, near misses, and sentinel events • Understands the roles of care team members	• Participates in the use of tools to prevent adverse events (e.g., checklists and briefings) • Describes the common system causes for errors	• Consistently uses tools to prevent adverse events (e.g., checklists and briefings) • Reports problematic behaviors, processes, and devices, including errors and near misses	• Formally analyzes shared team experiences to prevent future errors using proven analysis techniques (e.g., root cause analysis, failure mode effects analysis) • Leads team by promoting situational awareness and input by all team members • Conducts morbidity and mortality conferences to improve patient safety	• Leads curriculum design to teach teamwork and communication skills to health care professionals • Helps lead a multidisciplinary team (e.g., human factors engineers, social scientists) to address patient safety issues
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Comments:				
Not yet achieved Level 1 ☐				

Resource Allocation — Systems-based Practice				
Level 1	Level 2	Level 3	Level 4	Level 5
• Describes practice variations in resource consumption, such as the utilization of diagnostic tests	• Describes the cost implications of using resources and practice variation	• Participates in responsible use of health care resources seeking appropriate assistance	• Practices cost-effective care (e.g., managing length of stay, operative efficiency)	• Designs measurement tools to monitor and provide feedback to providers/teams on resource consumption to facilitate improvement
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Comments:				
Not yet achieved Level 1 ☐				

Practice Management — Systems-based Practice				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands basic health payment systems, including uninsured care • Understands different practice models	• Understands principles of diagnosis, evaluation and management, and procedure coding • Compares and contrasts different practice models	• Codes routine diagnoses, encounters, and surgical procedures; documents medical necessity • Recognizes basic elements needed to establish practice (e.g., negotiations, malpractice insurance, contracts, staffing, compliance, facility accreditation)	• Codes complex and unusual diagnoses, encounters, and surgical procedures • Establishes timeline and identifies resources for transition to practice (e.g., information technology, legal, financial, personnel)	• Participates in advocacy activities for health policy • Creates curriculum to teach practice management
☐	☐	☐	☐	☐ ☐ ☐ ☐ ☐
Comments:				
Not yet achieved Level 1 ☐				

The ability to investigate and evaluate the care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning — Practice-based Learning and Improvement				
Level 1	Level 2	Level 3	Level 4	Level 5
• Is aware of one's own level of knowledge and expertise and uses feedback from teachers, colleagues, and patients • Identifies learning resources	• Continually seeks and incorporates feedback to improve performance • Develops a learning plan and uses published review articles and guidelines	• Demonstrates a balanced and accurate self-assessment of competence, investigates clinical outcomes and areas for continued improvement • Selects an appropriate evidence-based information tool to answer specific questions	• Demonstrates improvement in clinical outcomes based on continual self-assessment • Performs self-directed learning with little external guidance using evidence-based information tools; includes a process to remain current in knowledge over time in learning plan	• Demonstrates consistent behavior of incorporating evidence-based information in common practice areas
☐	☐	☐	☐	☐ ☐ ☐ ☐
Comments:				
Not yet achieved Level 1 ☐				

Research and Teaching — Practice-based Learning and Improvement				
Level 1	Level 2	Level 3	Level 4	Level 5
• Describes basic concepts in clinical epidemiology, biostatistics, and clinical reasoning; can categorize research study design • Participates in the education of patients, families, and junior learners	• Ranks study designs and can distinguish relevant research outcomes (e.g., patient-oriented evidence that matters) from other types of evidence • Teaches patients, families, and junior learners	• Applies a set of critical appraisal criteria to different types of research, including synopses of original research findings, systematic reviews and meta-analyses, and clinical practice guidelines • Teaches colleagues and other health professionals in both formal and informal settings; assesses and provides feedback to junior learners	• Formulates a searchable question, describes a plan to investigate it, and executes a research project • Organizes educational activities at the program level	• Independently plans and executes a research program • Develops educational curriculum and assessment tools
☐	☐	☐	☐	☐ ☐ ☐ ☐
Comments:				
Not yet achieved Level 1 ☐				

Ethics and Values — Professionalism				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands basic bioethical principles and is able to identify ethical issues in plastic surgery • Demonstrates behavior that conveys caring, honesty, and genuine interest in patients and families	• Recognizes ethical issues in practice and is able to discuss, analyze, and manage common ethical situations • Demonstrates behavior that shows insight into the impact of one's core values and beliefs on patient care	• Analyzes and manages ethical issues in complicated and challenging situations • Understands the beliefs, values, and practices of diverse and vulnerable patient populations, and the potential impact on patient care	• Uses a systematic approach to analyzing and managing ethical issues, including advertising, billing, and conflicts of interest • Develops a mutually agreeable care plan in context of conflicting physician and patient values and beliefs	• Helps lead institutional and organizational ethics programs • Develops programs to ensure equality of care in diverse, vulnerable, and underserved populations
☐	☐	☐	☐	☐ ☐ ☐ ☐
Comments:				
Not yet achieved Level 1 ☐				

Personal Accountability — Professionalism				
Level 1	Level 2	Level 3	Level 4	Level 5
• Understands and manages issues related to fatigue and sleep deprivation • Exhibits professional behavior (e.g., reliability, industry, integrity, and confidentiality)	• Demonstrates management of personal emotional, physical, and mental health • Recognizes individual limits in clinical situations and asks for assistance when needed	• Identifies and manages situations in which maintaining personal emotional, physical, and mental health is challenged • Understands conflicting interests of self, family, and others, and their effects on the delivery of medical care	• Recognizes signs of physician impairment and demonstrates appropriate steps to address impairment in self and in colleagues • Prioritizes and balances conflicting interests of self, family, and others to optimize medical care	• Helps develop institutional and organizational strategies to improve physician wellness
☐	☐	☐	☐	☐ ☐ ☐ ☐
Comments:				
Not yet achieved Level 1 ☐				

Interpersonal and Communication Skills				
Level 1	Level 2	Level 3	Level 4	Level 5
• Develops a positive relationship with patients and teams, in uncomplicated situations and recognizes communication conflicts • Understands the patient's/family's perspective while engaged in active listening • Utilizes interpreters as needed • Appreciates effective communication to prevent medical error • Participates in effective transitions of care • Uses photographic documentation with safeguards for privacy	• Negotiates and manages simple patient-, family-, and team-related conflicts • Responds to the social and cultural context of the patient and family to ensure the patient understands and is able to participate in health care decision-making • Ensures that the medical record, including electronic medical record (EMR) and photographs, is timely, accurate, and complete • Understands the effects of computer use on information accuracy and potential effects on the physician/patient relationship	• Sustains working relationships and manages complex and challenging situations, including transitions of care • Customizes the delivery of emotionally difficult information • Manages transitions of care and optimizes communication across systems	• Negotiates and manages conflict in complex and challenging situations, including in vulnerable populations, and develops working relationships across specialties and systems of care • Organizes and facilitates family/health care team conferences • Uses multiple forms of communication (e.g., e-mail, patient portal, social media) ethically and with respect for patient privacy • Understands the use of ethical marketing practices	• Develops models/approaches to managing difficult communications and seeks leadership opportunities within professional organizations • Coaches others to improve communication skills
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Comments: **Not yet achieved Level 1** ☐				